MINERALS TECHNOLOGIES INC
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Form 10-K

February 18, 2015

**UNITED STATES** 

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2014

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_\_ to \_\_\_\_\_

Commission file number 1-11430

#### MINERALS TECHNOLOGIES INC.

(Exact name of registrant as specified in its charter)

Delaware 25-1190717 (State or other jurisdiction of incorporation or organization) Identification Number)

622 Third Avenue

38<sup>th</sup> Floor 10017-6707 New York, New York (Zip Code)

(Address of principal executive office)

(212) 878-1800

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Name of each exchange on which registered

Common Stock, \$.10 par value New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:

**None** 

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act.

Yes No

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of the Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the Registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer Accelerated Filer Non- accelerated Filer Smaller Reporting Company (Do not check if smaller reporting company)

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the voting stock held by non-affiliates of the Registrant, based upon the closing price at which the stock was sold as of June 30, 2014, was approximately \$2.3 billion. Solely for the purposes of this calculation, shares of common stock held by officers, directors and beneficial owners of 10% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of February 4, 2015, the Registrant had outstanding 34,702,345 shares of common stock, all of one class.

#### DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's Proxy Statement for its 2014 Annual Meeting of Stockholders are incorporated herein by reference in Part III of this Annual Report on Form 10-K.

# MINERALS TECHNOLOGIES INC. 2014 FORM 10-K ANNUAL REPORT

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#### PART I

Item 1. Business

Minerals Technologies Inc. (together with its subsidiaries, the "Company", "we", "us" or "our") is a resource- and technology-based company that develops, produces, and markets on a worldwide basis a broad range of specialty mineral, mineral-based and synthetic mineral products and supporting systems and services. On May 9, 2014, the Company acquired AMCOL International Corporation ("AMCOL"). See Note 2 to the Consolidated Financial Statements for further details.

As a result of the acquisition of AMCOL, the Company has five reportable segments: Specialty Minerals, Refractories, Performance Materials, Construction Technologies, and Energy Services compared to two reportable segments in prior years (Specialty Minerals and Refractories).

The Specialty Minerals segment produces and sells the synthetic mineral product precipitated calcium carbonate ("PCC") and processed mineral product quicklime ("lime"), and mines mineral ores then processes and sells natural mineral products, primarily limestone and talc. This segment's products are used principally in the paper, building materials, paint and coatings, glass, ceramic, polymer, food, automotive and pharmaceutical industries.

The Refractories segment produces and markets monolithic and shaped refractory materials and specialty products, services and application and measurement equipment, and calcium metal and metallurgical wire products.

Refractories segment products are primarily used in high-temperature applications in the steel, non-ferrous metal and glass industries.

The Performance Materials segment is a leading supplier of bentonite and bentonite-related products. This segment also supplies chromite and leonardite and operates more than 25 mining or production facilities worldwide.

The Construction Technologies segment provides products for non-residential construction, environmental and infrastructure projects worldwide. It serves customers engaged in a broad range of construction projects, including -site remediation, concrete waterproofing for underground structures, liquid containment on projects ranging from landfills to flood control, and drilling applications including foundation, slurry wall, tunneling, water well, and horizontal drilling.

The Energy Services segment provides services to improve the production, costs, compliance, and environmental impact of activities performed in oil and gas industry. This segment offers a range of patented and unpatented technologies, products and services for all phases of oil and gas production, refining, and storage throughout the world.

The following table sets forth the percentage of our revenues generated from each segment for each of our last three fiscal years:

Percentage of Net Sales	2014		2013		2012	
Specialty Minerals	38	%	66	%	66	%
Refractories	21	%	34	%	34	%
Performance Materials	20	%	-		-	
Construction Technologies	9	%	-		-	
Energy Services	12	%	-		-	
Total	100	%	100	%	100	) %

The Company maintains a research and development focus. The Company's research and development capability for developing and introducing technologically advanced new products has enabled the Company to anticipate and satisfy changing customer requirements, creating market opportunities through new product development and product application innovations.

Specialty Minerals Segment

PCC Products and Markets

The Company's PCC product line net sales were \$520.6 million, \$547.2 million and \$537.4 million for the years ended December 31, 2014, 2013 and 2012, respectively. The Company's sales of PCC have been, and are expected to continue to be, made primarily to the printing and writing papers segment of the paper industry. The Company also produces PCC for sale to companies in the polymer, food and pharmaceutical industries.

PCC Products - Paper

In the paper industry, the Company's PCC is used:

Äs a filler in the production of coated and uncoated wood-free printing and writing papers, such as office papers;

As a filler in the production of coated and uncoated groundwood (wood-containing) paper such as magazine and catalog papers; and

Xs a coating pigment for both wood-free and groundwood papers.

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The Company's Paper PCC product line net sales were \$454.5 million, \$480.0 million and \$471.5 million for the years ended December 31, 2014, 2013 and 2012, respectively.

Approximately 26% of the Company's sales consist of PCC sold to papermakers from "satellite" PCC plants. A satellite PCC plant is a PCC manufacturing facility located near a paper mill, thereby eliminating costs of transporting PCC from remote production sites to the paper mill. The Company believes the competitive advantages offered by improved economics and superior optical characteristics of paper produced with PCC manufactured by the Company's satellite PCC plants resulted in substantial growth in the number of the Company's satellite PCC plants since the first such plant was built in 1986. For information with respect to the locations of the Company's PCC plants as of December 31, 2014, see Item 2, "Properties," below.

The Company currently manufactures several customized PCC product forms using proprietary processes. Each product form is designed to provide optimum balance of paper properties including brightness, opacity, bulk, strength and improved printability. The Company's research and development and technical service staff focuses on expanding sales from its existing and potential new satellite PCC plants as well as developing new technologies for new applications. These technologies include, among others, acid-tolerant ("AT®") PCC, which allows PCC to be introduced to the large wood-containing segment of the printing and writing paper market, OPACARB® PCC, a family of products for paper coating, and our FulFill® family of products, a system of high-filler technologies that offers papermakers a variety of efficient, flexible solutions which decrease dependency on natural fibers.

The Company owns, staffs, operates and maintains all of its satellite PCC facilities, and owns or licenses the related technology. Generally, the Company and its paper mill customers enter into long-term evergreen agreements, initially ten years in length, pursuant to which the Company supplies substantially all of the customer's precipitated calcium carbonate filler requirements. The Company is generally permitted to sell to third-parties PCC produced at a satellite plant in excess of the host paper mill's requirement.

The Company also sells a range of PCC products to paper manufacturers from production sites not associated with paper mills. These merchant facilities are located at Adams, Massachusetts and Lifford, United Kingdom.

#### PCC Markets - Paper

Uncoated Wood-Free Printing and Writing Papers – North America. Beginning in the mid-1980's, as a result of a concentrated research and development effort, the Company's satellite PCC plants facilitated the conversion of a substantial percentage of North American uncoated wood-free printing and writing paper producers to lower-cost alkaline papermaking technology. The Company estimates that during 2014, more than 90% of North American uncoated wood-free paper was produced employing alkaline technology. Presently, the Company owns and operates 15 commercial satellite PCC plants located at paper mills that produce uncoated wood-free printing and writing papers in North America.

Uncoated Wood-Free Printing and Writing Papers – Outside North America. The Company estimates the amount of uncoated wood-free printing and writing papers produced outside of North America at facilities that can be served by satellite and merchant PCC plants is more than twice as large (measured in tons of paper produced) as the North American uncoated wood-free paper market currently served by the Company. The Company believes that the superior brightness, opacity and bulking characteristics offered by its PCC products allow it to compete with suppliers of ground limestone and other filler products outside of North America. Presently, the Company owns and operates 28 commercial satellite PCC plants located at paper mills that produce uncoated wood-free printing and writing papers outside of North America.

Uncoated Groundwood Paper. The uncoated groundwood paper market, including newsprint, represents approximately 20% of worldwide paper production. Paper mills producing wood-containing paper still generally employ acid papermaking technology. The conversion to alkaline technology by these mills has been hampered by the tendency of wood-containing papers to darken in an alkaline environment. The Company has developed proprietary application technology for the manufacture of high-quality groundwood paper in an acidic environment using PCC (AT® PCC). Furthermore, as groundwood or wood-containing paper mills use larger quantities of recycled fiber, there is a trend toward the use of neutral papermaking technology in this segment for which the Company presently supplies traditional PCC chemistries. The Company now supplies PCC at 9 groundwood paper mills around the world and licenses its technology to a ground calcium carbonate producer to help accelerate the conversion from acid to alkaline papermaking.

Coated Paper. The Company continues to pursue satellite PCC opportunities in coated paper markets where our products provide unique performance and/or cost reduction benefits to papermakers and printers. Our Opacarb product line is designed to create value to the papermaker and can be used alone or in combination with other coating pigments. PCC coating products are produced at 7 of the Company's PCC plants worldwide.

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# Specialty PCC Products and Markets

The Company also produces and sells a full range of dry PCC products on a merchant basis for non-paper applications. The Company's Specialty PCC product line net sales were \$66.1 million, \$67.2 million and \$65.9 million for the years ended December 31, 2014, 2013 and 2012, respectively. The Company sells surface-treated and untreated grades of PCC to the polymer industry for use in automotive and construction applications, and to the adhesives and printing inks industries. The Company's PCC is also used by the food and pharmaceutical industries as a source of calcium in tablets and food applications, as a buffering agent in tablets, and as a mild abrasive in toothpaste. The Company produces PCC for specialty applications from production sites at Adams, Massachusetts and Lifford, England.

#### Processed Minerals - Products and Markets

The Company mines and processes natural mineral products, primarily limestone and talc. The Company also manufactures lime, a limestone-based product. The Company's net sales of processed mineral products were \$129.5 million, \$122.6 million and \$116.0 million for the years ended December 31, 2014, 2013 and 2012, respectively. Net sales of talc products were \$55.5 million, \$50.9 million and \$48.1 million for the years ended December 31, 2014, 2013 and 2012, respectively. Net sales of ground calcium carbonate ("GCC") products, which are principally lime and limestone, were \$74.0 million, \$71.7 million and \$67.9 million for the years ended December 31, 2014, 2013 and 2012, respectively.

The Company mines and processes GCC products at its reserves in the eastern and western parts of the United States. GCC is used and sold in the construction, automotive and consumer markets.

Lime produced at the Company's Adams, Massachusetts, and Lifford, United Kingdom, facilities is used primarily as a raw material for the manufacture of PCC at these sites and is sold commercially to various chemical and other industries.

The Company mines, beneficiates and processes talc at its Barretts site, located near Dillon, Montana. Talc is sold worldwide in finely ground form for ceramic applications and in North America for paint and coatings and polymer applications. Because of the exceptional chemical purity of the Barretts ore, a significant portion of worldwide automotive catalytic converter ceramic substrates contain the Company's Barretts talc.

Our high quality limestone, dolomitic limestone, and talc products are defined primarily by the chemistry and color characteristics of the ore bodies. Ore samples are analyzed by x-ray fluorescence (XRF) and other techniques to determine purity and more generally by Hunter brightness measurement to determine dry brightness and the Hunter yellowness (b) value. We serve multiple markets from each of our operations, each of which has different requirements relating to a combination of chemical and physical properties.

Refractories Segment

Refractory Products and Markets

**Refractories Products** 

The Company offers a broad range of monolithic and pre-cast refractory products and related systems and services. The Company's Refractory segment net sales were \$359.7 million, \$348.4 million and \$343.4 million for the years ended December 31, 2014, 2013 and 2012, respectively.

Refractory product sales are often supported by Company-supplied proprietary application equipment and on-site technical service support. The Company's proprietary application equipment is used to apply refractory materials to the walls of steel-making furnaces and other high temperature vessels to maintain and extend their useful life. Net sales of refractory products, including those for non-ferrous applications, were \$273.9 million, \$264.0 million and \$264.1 million for the years ended December 31, 2014, 2013 and 2012. The Company's proprietary application system, such as its MINSCAN®, allow for remote-controlled application of the Company's refractory products in steel-making furnaces, as well as in steel ladles and blast furnaces. Since the steel-making industry is characterized by intense price competition, which results in a continuing emphasis on increased productivity, these application systems and the technologically advanced refractory materials developed in the Company's research laboratories have been well accepted by the Company's customers. These products allow steel makers to improve their performance through, among other things, the application of monolithic refractories to furnace linings while the furnace is at operating temperature, thereby eliminating the need for furnace cool-down periods and steel-production interruption. The result is a lower overall cost for steel produced by steel makers. During the third quarter 2012, we signed a three-year agreement with United Steel Company B.S.C. (SULB) to perform all refractory maintenance at a greenfield steel mill in Bahrain. Minteq, working with other refractory companies, is responsible for coordinating refractory maintenance of the steel furnaces and other steel production vessels. During 2014, we entered into two new multi-year maintenance agreements with steel makers based on the cost per ton of steel produced. We have a three-year agreement with Bhushan Steel Ltd. in India and a two-year agreement with Tata Steel Europe in the United Kingdom. Cost-per-ton contracts provide longer-term stability and a closer working relationship with the customer. We are exploring the use of this business model for other operations.

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The Company's technical service staff and application equipment assist customers to achieve desired productivity objectives. The Company's technicians are also able to conduct laser measurement of refractory wear, sometimes in conjunction with robotic application tools, to improve refractory performance at many customer locations. The Company believes that these services, together with its refractory product offerings, provide it with a strategic marketing advantage.

Over the past several years the Refractories segment has continued to develop, reformulate, and optimize its products and application technology to maintain its competitive advantage in the market place. Some of the products the Company has developed and optimized in the past several years include:

HOTCRETE®: High durability shotcrete products for applications at high temperatures in ferrous applications such as steel ladles, electric arc furnaces (EAF) and basic oxygen furnaces (BOF) furnaces.

FASTFIRE®: High durability castable and shotcrete products in the non-ferrous and ferrous industries with the added benefit of rapid dry-out capabilities.

OPTIFORM®: A system of products and equipment for the rapid continuous casting of refractories for applications such as steel ladle safety linings.

ËNDURATEQ®: A high durability refractory shape for glass contact applications such as plungers and orifice rings. DECTEQ<sup>TM</sup>: A system for the automatic control of electrical power feeding electrodes used in electric arc steel making furnaces.

LACAM® Torpedo: A laser scanning system that measures the refractory lining thickness inside a Hot Iron (Torpedo) Ladle. The torpedo ladles transport liquid iron from a blast furnace to the steel plant.

LACAM®: A new, fourth generation Lacam® laser measurement device for use in the worldwide steel industry that is  $\ddot{Y}$ 7 times faster than the previous version. This new technology provides the fastest and most accurate laser scanning for hot surfaces available today.

#### Refractories Markets

The principal market for the Company's refractory products is the steel industry. Management believes that certain trends in the steel industry will provide growth opportunities for the Company. These trends include growth and quality improvements in select geographic regions (e.g., China, Middle East, Eastern Europe and India) the development of improved manufacturing processes such as thin-slab casting, the trend in North America to shift production from integrated mills to electric arc furnaces (mini-mills) and the ever-increasing need for improved productivity and longer lasting refractories.

The Company sells its refractory products in the following markets:

Steel Furnace. The Company sells gunnable monolithic refractory products and application systems to users of basic oxygen furnaces and electric arc furnaces for application on furnace walls to prolong the life of furnace linings.

Other Iron and Steel. The Company sells monolithic refractory materials and pre-cast refractory shapes for iron and steel ladles, vacuum degassers, continuous casting tundishes, blast furnaces and reheating furnaces. The Company offers a full line of materials to satisfy most continuous casting refractory applications. This full line consists of gunnable materials, refractory shapes and permanent linings.

Industrial Refractory Systems. The Company sells refractory shapes and linings to non-steel refractories consuming industries including glass, cement, aluminum and petrochemicals, power generation and other non-steel industries. The Company also produces a specialized line of carbon composites and pyrolitic graphite primarily sold under the PYROID® trademark, primarily to the aerospace and electronics industries.

# Metallurgical Products and Markets

The Company produces a number of other technologically advanced products for the steel industry, including calcium metal, metallurgical wire products and a number of metal treatment specialty products. Net sales of metallurgical products were \$85.8 million, \$84.4 million and \$79.3 million for the years ended December 31, 2014, 2013 and 2012. The Company manufactures calcium metal at its Canaan, Connecticut, facility and purchases calcium in international markets. Calcium metal is used in the manufacture of the Company's PFERROCAL® solid-core calcium wire, and is also sold for use in the manufacture of batteries and magnets. We also manufacture cored wires at our Canaan, Connecticut and Hengelo, Netherlands, manufacturing sites. The Company sells metallurgical wire products and associated wire-injection equipment for use in the production of high-quality steel. These metallurgical wire products are injected into molten steel to improve castability and reduce imperfections.

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#### Performance Materials Segment

The Performance Materials segment is a new segment resulting from the acquisition of AMCOL. This segment is a leading supplier of bentonite and bentonite-related products. Bentonite is a sedimentary deposit containing greater than 50% montmorillonite and is volcanic in origin. It is surface mined and then dried, crushed, sent through grinding mills where it is sized to customer requirements, and transferred to silos for automatic bagging or bulk shipment. The processed bentonite may be chemically modified. Bentonite's unique chemical structure gives it a diverse range of capabilities, enabling it to act as a thickener, sealant, binder, lubricant or absorption agent. From a commercial standpoint, there are two primary types of natural bentonite, sodium and calcium. Sodium-bentonite is characterized by its ability to absorb large amounts of water and form viscous, thixotropic suspensions. Calcium-bentonite, in contrast, is characterized by its low water absorption and swelling capabilities and its inability to stay suspended in water. Each type of bentonite has its own unique applications. This segment also supplies chromite and leonardite, which is primarily used in metalcasting, drilling fluid additive, and agricultural applications. The principal products of this segment are marketed under various registered trade names, including VOLCLAY®, PANTHER CREEK®, PREMIUM GEL®, ADDITROL®, ENERSOL®, and Hevi-Sand®.

The performance materials segment has three product lines – metalcasting; household, personal care and specialty products; and basic minerals and other products.

#### Metalcasting Products and Markets

The metalcasting product line produces custom-blended mineral and non-mineral products to strengthen sand molds for casting auto parts, farm and construction equipment, oil and gas production equipment, power generation turbine castings and rail car components. These products help our customers in the foundry and casting industry to reduce waste from metalcasting defects, improve the efficiency and recycling of sand blends in mold sand systems, and improve air quality by reducing volatile organic compound emissions.

In the ferrous casting market, the Company specializes in blending bentonite of various grades by themselves or with mineral binders containing sodium bentonite, calcium bentonite, seacoal and other ingredients. This segment also has a line of formulated additives that introduce silicon and carbon in the melt phase of the casting process.

In the steel alloy casting market, the Company sells chromite products with a particle size distribution specific to customers' needs. One of chromite's qualities is its ability to conduct heat. Thus, the Company markets the product for use in making very large, high integrity, steel alloy castings where the chromite is better suited to withstand the high heat and pressure associated with the casting process.

In January 2015, the Company announced that it entered into agreement with Glencore in South Africa, where the Company mines chromite. Under the agreement, Glencore will supply chromite products from the Glencore-Merafe joint venture that will be exclusively distributed by the Company in certain territories, including the Americas.

The Company's metalcasting product line net sales were \$181.4 million from May 9, 2014, through December 31, 2014.

Household, Personal Care and Specialty Products and Markets

The household, personal care and specialty products contain pet litter, fabric care, health and beauty, and agricultural specialty products.

The pet litter products include sodium bentonite-based scoopable (clumping), traditional and alternative cat litters as well as specialty pet products sold to grocery and drug stores, mass merchandisers, wholesale clubs and pet specialty stores throughout the U.S. The Company's scoopable products' clump-forming capability traps urine, thereby reducing waste by allowing for easy removal of only the odor-producing elements from the litter box. The Company is primarily a private-label producer of cat litter, and the products are marketed under various trade names. These products are sold mainly in the U.S. from three principal sites from which we package and distribute finished goods. The Company's internal transportation group provides logistics services and is a key component of our capability in supplying customers on a national basis.

The Company supplies fabric care products and additives consisting of high-grade, agglomerated bentonite and other mineral additives that performs as softening agents in certain powdered-detergent formulations or act as a carrier for colorants and fragrances. These fabric care products are not only cost-effective but also provide product development capabilities to adapt along with our customers' requirements.

The Company manufactures adsorbent polymers and purified grades of bentonite ingredients for sale to manufacturers of personal skin care products. The adsorbent polymers are used to deliver high-value actives in skin-care products. Bentonite-based materials act as thickening, suspension and dispersion agent emollients.

The specialty materials products contain bentonite and synthetic additives offering proprietary solutions for consumer and industrial applications. Bio-agricultural is the main offerings in this product line.

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The Company's household, personal care and specialty product line net sales were \$108.0 million from May 9, 2014, through December 31, 2014.

Basic Minerals and Other Products and Markets

Basic minerals and other products line contains sales of bentonite, chromite and leonardite to a variety of end markets and industrial application, including the following:

Drilling Fluid Additives: Sodium bentonite and leonardite are components of certain drilling fluids used in oil and gas well drilling. Bentonite imparts thickening and suspension properties that facilitate the transport of rock cuttings to the surface during the drilling process. It also contributes to a drilling fluid's ability to lubricate the drill bit and coat the underground formations to prevent hole collapse and drill-bit seizing. We market our drilling fluid additives under our own and private-label trade names. At least two drilling fluid service competitors have captive bentonite operations while others are party to long-term bentonite supply agreements. The potential customers for our products, therefore, are generally limited to those service organizations that neither are vertically integrated nor have long-term supply arrangements with other bentonite producers. Our primary trademark for this application is the trade name PREMIUM GEL®.

Ferro Alloys: A by-product of our chromite processing operations for foundry products includes a chromite ore which has physical properties suited for use in producing ferrochrome. The ore generally needs to have a chromite content in excess of 42% to meet metallurgical grade specifications. Manufacturers of stainless steel are the primary users of ferrochrome.

Other Industrial: The Company produces bentonite and bentonite blends for the construction industry to be used as a plasticizing agent in cement, and plaster and bricks. The Company also supplies bentonite to help pelletize other materials for ease of use. Examples of this application include the pelletizing of iron ore.

This product line also includes sales from our internal transportation and logistics group. The Company's basic minerals and other product line net sales were \$63.4 million from May 9, 2014, through December 31, 2014.

#### Construction Technologies Segment

The Construction Technologies segment is a new segment resulting from the acquisition of AMCOL. This segment provides products for non-residential construction, environmental and infrastructure projects worldwide. It serves customers engaged in a broad range of construction projects, including site remediation, concrete waterproofing for underground structures, liquid containment on projects ranging from landfills to flood control, and drilling applications including foundation, slurry wall, tunneling, water well, and horizontal drilling.

This segment has two product lines – environmental products, and building materials and other products.

# **Environmental Products and Markets**

The environmental product line includes bentonite-based lining technologies and liquid containment products for environmental projects such as landfill and mine waste disposal sites as well as other environmental remediation applications.

The Company sells lining and other products for a variety of applications, most of which are directed to preserving or remediating environmental issues. The Company helps customers protect ground water and soil through the sale of

geosynthetic clay liner products containing bentonite. These products are marketed under the BENTOMAT® and CLAYMAX® trade names principally for lining and capping landfills, mine waste disposal sites, water and wastewater lagoons, secondary containments in tank farms, and other contaminated sites. The Company also provides associated geosynthetic materials for these applications, including geotextiles and drainage geocomposites.

The environmental products also include specialized technologies to mitigate vapor intrusion in new building construction. The Company's innovative vapor barrier systems prevent potentially harmful vapors from entering occupied space, thus facilitating low-risk redevelopment. The Company also provides reactive capping technologies and solutions to effectively contain residual contamination, reduce costs associated with ex-situ remedies, and aid in environmental protection. Products offered include Liquid Boot®, a liquid applied vapor barrier system; REACTIVE CORE-MAT<sup>TM</sup>, an in-situ sediment capping material; ORGANOCLA®Y which absorbs organic containments; and QUIK-SOLID®, a super absorbent media.

The Company's environmental product line net sales were \$70.7 million from May 9, 2014, through December 31, 2014.

Building Materials and Other Products and Markets

The building materials and other product line includes various active and passive products for waterproofing of underground structures, commercial building envelopes and tunnels. It also includes drilling products for commercial buildings, construction foundations, and for horizontal directional drilling applications.

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Building Materials: The Company offers a wide variety of active and passive waterproofing and greenroof technologies for use in protecting the building envelope of non-residential construction, including buildings, subways, and parkway systems. Our products include VOLTEX®, a waterproofing composite comprised of two polypropylene geotextiles filled with sodium bentonite; ULTRASEAL®, an advanced membrane using a unique active polymer core; and COREFLEX®, featuring heat-welded seams for protection of critical infrastructure. In addition to these membrane materials, we also provide roofing products and a variety of sealants and other accessories required to create a functional waterproofing system. The end-user of these products are generally building sub-contractors who are responsible for installing the products.

Drilling Products: Drilling products are used in environmental and geotechnical drilling applications, horizontal directional drilling, mineral exploration and foundation construction. The products are used to install monitoring wells, facilitate horizontal and water well drilling, and seal abandoned exploration drill holes. VOLCLAY GROUT<sup>TM</sup>, HYDRAUL-EZ®, BENTOGROUT® and VOLCLAY TABLETS<sup>TM</sup> are among the trade names for products used in these applications. Ground source heat loop systems utilizing GEOTHERMAL GROUT<sup>TM</sup> represent a developing area for drilling products. The Company also offer a range of drilling products used in the excavation of foundations for large buildings, bridges and dams; these products include SHORE PAC® and PREMIUM GEL®. The end-users for these products are typically small well drilling companies and general contractors.

The Company's building materials and other product line net sales were \$81.6 million from May 9, 2014, through December 31, 2014.

# **Energy Services Segment**

The Energy Services segment is a new segment resulting from the acquisition of AMCOL. This segment provides services to improve the production, costs, compliance, and environmental impact of activities performed in the oil and gas industry. The composition of customers within this segment varies from year to year and is significantly dependent on the type of activities each customer is undertaking within the year, regulations, and overall dynamics of the oil and gas industry. The Company offers a range of patented and unpatented technologies, products and services for all phases of oil and gas production, transportation, refining, and storage throughout the world. The Company provides both land-based and offshore water treatment, well testing, pipeline separation, nitrogen, coil tubing and other services to the oil and gas industry. Services are provided through subsidiaries located in Australia, Brazil, Malaysia, Nigeria, the United Kingdom, and the U.S., principally in the Gulf of Mexico and the surrounding on-shore area. Energy Services segment's net sales were \$210.1 million from May 9, 2014, through December 31, 2014.

#### **Principal Services**

The Company provides following principal services:

Water Treatment/Filtration: The Company helps customers comply with regulatory requirements by providing equipment, technologies, personnel and filtration media to treat waste water generated during oil production.

Well Testing: The Company provides equipment and personnel to help customers control well production as well as to clean up, unload, separate, measure component flow, and dispose of fluids from oil and gas wells.

Coil Tubing: Our coil tubing services utilize metal piping which comes spooled on a large reel. The Company provides both equipment and operating personnel to perform services ranging from acid stimulation, reverse circulation, cementing, pressure control, nitrogen injection, and other operations that involve pumping fluids into a well. Horizontal wells and shale completions are a large component of our operations.

Pipeline: Our personnel utilize engineered equipment that separates, filters, cleans and allows treatment of effluents arising from pipeline testing and maintenance activities.

Nitrogen Services: Liquid nitrogen is commonly used in the pipeline, refinery, and oil and natural gas industry. By providing liquid nitrogen that is then changed into nitrogen gas with our personnel and mobile equipment, we help customers perform maintenance activities in a safe environment on their production platforms, pipeline operations, and refineries. These services are provided in jetting wells that are loaded with fluid stimulating wells, including fracturizing and acidizing; displacing completion fluids prior to perforating; inflating flotation devices for offshore installations; and pressure testing and other maintenance activities.

### Marketing and Sales

The Company relies principally on its worldwide direct sales force to market its products. The direct sales force is augmented by technical service teams that are familiar with the industries to which the Company markets its products, and by several regional distributors. The Company's sales force works closely with the Company's technical service staff to solve technical and other issues faced by the Company's customers.

In the Specialty Minerals segment, the Company's technical service staff assists paper producers in ongoing evaluations of the use of PCC for paper coating and filling applications.

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In the Refractory segment, the Company's technical service personnel advise on the use of refractory materials, and, in many cases pursuant to service agreements, apply the refractory materials to the customers' furnaces and other vessels.

In the Performance Materials segment, the Company's industry-specialized sales group and technically oriented sales persons provide expertise not only to educate our customers on the bentonite blend properties but also to aid them in producing castings efficiently. Certain of our products are distributed through networks of distributors and representatives, who warehouse specific products at strategic locations.

In the Construction Technologies segment, sales and distribution of the environmental products are primarily performed through Company's own personnel and facilities. Our staff includes sales professionals and technical support engineers who analyze the suitability of our products in relation to the customer's specific application and the conditions that products will endure or the environment in which they will operate. The building materials products are sold through our own sales professionals as well as through an integrated distributor and dealer network. Our sales and technical staff typically assist project designers by providing technical data to engineers and architects who specify our products in the design of building structures. Our drilling products are generally sold through an extensive distribution network coordinated by our regional sales managers.

In the Energy Services segment, the Company's employees sell the services on a direct basis.

Continued use of skilled technical service teams is an important component of the Company's business strategy. The Company works closely with its customers to ensure that their requirements are satisfied, and it often trains and supports customer personnel in the use of the Company's products. The Company oversees domestic marketing and sales activities principally from Bethlehem, Pennsylvania and Hoffman Estates, Illinois, and from regional sales offices elsewhere in the United States. The Company's international marketing and sales efforts are directed from regional centers located in India, the United Kingdom, Brazil, and China. The Company believes that its worldwide network of sales personnel and manufacturing sites facilitates the continued international expansion.

#### Raw Materials

The Company depends in part on having an adequate supply of raw materials for its manufacturing operations, particularly lime and carbon dioxide for the PCC product line, and magnesia and alumina for its Refractory operations. We also depend on having an adequate supply of bentonite, leonardite and chromite for our Performance Materials segment, bentonite for our Construction Technologies segment, and limestone and talc for our Processed Minerals product line. Supplies of bentonite, leonardite, chromite, limestone and talc are provided through the Company's own mining operations and we depend on having adequate access to ore reserves of appropriate quality at such mining operations.

The Company uses lime in the production of PCC and is a significant purchaser of lime worldwide. Generally, the lime utilized in our business is readily available from numerous sources and we purchase lime under long-term supply contracts from unaffiliated suppliers located in close geographic proximity to the Company's PCC plants. We also produce lime at our Adams, Massachusetts facility and our Lifford, UK facility, although most of the lime produced at our Adams facility and all of the lime produced at our Lifford facility is consumed in the production of Specialty PCC at the plant. We currently supply some quantities of lime to third parties that are in close proximity to our Adams plant and could supply small quantities of lime to certain of our PCC satellite facilities that are in close geographic proximity to the Adams plant. Carbon dioxide is readily available in exhaust gas from the host paper mills, or other operations at our merchant facilities.

The principal raw materials used in the Company's monolithic refractory products are refractory-grade magnesia and various forms of alumina silicates. Approximately 45% percent of the Company's magnesia requirements were purchased from sources in China over the past five years. The price and availability of bulk raw materials from China are subject to fluctuations that could affect the Company's sales to its customers. In addition, the volatility of transportation costs has also affected the delivered cost of raw materials imported from China to North America and Europe. The Company has developed alternate sources of magnesia over the past few years that have reduced our reliance on China sourced magnesia. The amount sourced from China and other locations can vary from year to year depending upon price and availability from each source. The alumina we utilize in our business is readily available from numerous sources. The Company also purchases calcium metal, calcium silicide, graphite, calcium carbide and various alloys for use in the production of metallurgical wire products and uses lime and aluminum in the production of calcium metal.

In addition to bentonite, leonardite and chromite provided through our mining operations, our Performance Material segment's principal raw materials are coal and soda ash, and our Construction Technologies segment's principal raw material is woven and unwoven polyester material, all of which are readily available from numerous sources.

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#### Mineral Reserves and Mining Process

The Company relies on access to bentonite reserves to support its Performance Materials and Construction Technologies segments. The Company has reserves of sodium and calcium bentonite at various locations in the U.S., including Wyoming, South Dakota, Montana and Alabama, as well as in Australia, China, and Turkey. Through the Company's affiliations and joint ventures, the Company also has access to bentonite deposits in Egypt, India, and Mexico. Assuming the continuation of 2014 annualized usage rates, the Company has reserves of commercially usable sodium bentonite for the next 37 years. Under the same assumptions, the Company has reserves of commercially usable calcium bentonite for the next 16 years.

The Company owns or controls the properties on which the bentonite reserves are located through long-term leases, royalty agreements (including easement and right of way agreements) and patented and unpatented mining claims. No single or group of mining claims or leases is significant or material to the financial condition or operations of our Company or our segments. The majority of our current bentonite mining in the U.S. occurs on reserves where our rights to such reserves accrue to us through over 80 mining leases and royalty agreements and 2,000 mining claims. The majority of these are with private parties and located in Montana, South Dakota and Wyoming. The bentonite deposits underlying these claims and leases generally lie in parcels of land varying between 20 and 40 acres.

In general, our bentonite reserves are immediately adjacent to, or within sixty miles of, one of the related processing plants. All of the properties on which our reserves are located are either physically accessible for the purposes of mining and hauling or the cost of obtaining physical access would not be material. Access to processing facilities from the mining areas is generally by private road, public highways, or railroads. For most of our leased properties and mining claims, there are multiple means of access.

Bentonite is surface mined, generally with large earthmoving scrapers, and then loaded into trucks and off-highway-haul wagons for movement to processing plants. The mining and hauling of our bentonite is done by us and by independent contractors. At the processing plants, bentonite is dried, crushed and sent through grinding mills, where it is sized to customer requirements, then chemically modified, where needed, and transferred to silos for automatic bagging or bulk shipment. Most of the production is shipped as processed rather than stored for inventory.

For our Performance Materials segment, we also mine leonardite, a form of oxidized lignite, in North Dakota, and chromite, an iron chromium oxide, in South Africa, and transport them to nearby processing facilities.

The Processed Minerals product line of our Specialty Minerals segment is supported by the Company's limestone reserves located in the western and eastern parts of the United States, and talc reserves located in Montana. The Company generally owns and surface mines these reserves and processes its products at nearby processing plants. The Company estimates these reserves, at current usage levels, to be in excess of 30 years at its limestone production facilities and in excess of 18 years at its talc production facility.

See Item 2, "Properties," for more information with respect to those facilities.

The Company relies on shipping bulk cargos of bentonite from the United States, Turkey and China to customers, as well as our own subsidiaries, and we are sensitive to our ability to recover these shipping costs. In the last few years, bulk cargo shipping rates have been very volatile, and, to a lesser extent, the availability of bulk cargo containers has been sporadic.

#### Competition

The Company is continually engaged in efforts to develop new products and technologies and refine existing products and technologies in order to remain competitive and to position itself as a market leader.

With respect to its PCC products, the Company competes for sales to the paper industry with other minerals, such as GCC and kaolin, based in large part upon technological know-how, patents and processes that allow the Company to deliver PCC that it believes imparts gloss, brightness, opacity and other properties to paper on an economical basis. The Company is the leading manufacturer and supplier of PCC to the paper industry.

The Company competes in sales of its limestone and talc based primarily upon quality, price, and geographic location.

With respect to the Company's refractory products, competitive conditions vary by geographic region. Competition is based upon the performance characteristics of the product (including strength, consistency and ease of application), price, and the availability of technical support.

For the Performance Materials segment, the Company competes on the basis of product quality, price, logistics, service and technical support. There are numerous major producers of competing products and various regional suppliers in the areas the Company serves. Some of the competitors, especially in the chromite market, are companies primarily in other lines of business with substantially greater financial resources than ours.

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For the Construction Technologies segment, with respect to its lining technologies product line, the Company competes with geosynthetic clay liner manufacturers worldwide, several suppliers of alternative lining technologies, and providers of soil and environmental remediation solutions and products. The building materials product line competes in a highly fragmented market comprised of a wide variety of alternative technologies. A number of integrated bentonite companies compete with our drilling products. Competition for all product lines is based on product quality, service, price, technical support and product availability.

The Energy Services segment competes with other oil and gas services companies. However, the Company believes that the Company offers several competitive advantages, especially in the area of water treatment services, due to superior and innovative technologies that the Company has developed internally and the combination of services that the Company can provide.

#### Seasonality

Most of the products in the Construction Technologies segment are impacted by weather and soil conditions. Many of the products cannot be applied in wet or winter weather conditions and, as such, sales and profits tend to be greater during the period from April through October. As a result, we consider the business of this segment to be seasonal. Our Processed Minerals product line of our Specialty Minerals segment is subject to similar seasonal patterns.

Much of the business in the Energy Services segment can be impacted by weather conditions. Our business is concentrated in the Gulf of Mexico and surrounding states where our customers' oil and gas production facilities are subject to natural disasters, such as hurricanes. Given this, our Energy Services sales could be lower in the June to November months. However, we can also experience periods of growth after a hurricane as customers require our services to start their operations back up.

#### Research and Development

Many of the Company's product lines are technologically advanced. The Company's internal research team has dedicated years of experience into analyzing properties of minerals and synthetic materials while developing processes and applications to enhance their performance. Our expertise in inorganic chemistry, crystallography and structural analysis, fine particle technology and other aspects of materials science apply to and support all of our product lines. The Company's business strategy for growth in sales and profitability depends, to a large extent, on the continued success of its research and development activities.

In the Specialty Minerals segment, the significant achievements of the Company's research and development efforts include: the satellite PCC plant concept; PCC crystal morphologies for paper coating; AT® PCC for wood-containing papers; FulFill® high filler technology systems; and EMforce®, Optibloc® and Titanium Dioxide (TiO2) extenders for the Processed Minerals and Specialty PCC product lines.

Under the FulFill® platform of products, the Company continues to develop its filler-fiber composite material. The FulFill® brand High Filler Technology is a portfolio of high-filler technologies that offers papermakers a variety of efficient, flexible solutions that decreases dependency on natural fiber and reduces costs. The FulFill® E-325 series allows papermakers to increase filler loading levels of precipitated calcium carbonate (PCC), which replaces higher cost pulp, and increases PCC usage. Depending on paper grades, this PCC volume increase may range from 15 to 30 percent. The Company continues to progress in the commercialization of FulFill® E-325. We have signed agreements with fifteen paper mills and are actively engaged with additional paper mill sites for further FulFill® deployment. We continue product development with other products within this platform and will also continue development of unique

calcium carbonates for use in novel biopolymers.

In the Refractories segment, the Company's achievements include the development of FASTFIR® and OPTIFORM® shotcrete refractory products; LACAM® laser-based refractory measurement systems; and the MINSCAN® and HOTCRETE® application systems. The Company will continue to reformulate its refractory materials to be more competitive.

The Company's Performance Materials segment also offers a strong portfolio of custom blended compounds, formulations and technology, which have been primarily developed internally by the Company's research and development efforts. The Additrol® formulation, a custom blend, meets the need of both ferrous and non-ferrous applications. The Volclay® application is used in green sand molding applications ranging from the production of iron and steel castings to the production of non-ferrous castings. The Hevi-Sand® specialty chromite blend prevents metal penetration and can be used with most foundry binders in molds and cores.

Similarly, within the Construction Technologies segment, we offer a strong portfolio of products developed principally by our internal efforts. The Company's RESISTEXTM and CONTINUUM® formulation enables withstanding aggressive leachates. The ORGANOCLAY® technology offers highly effective solutions in effective in removing oils, greases and other high molecular weight, low solubility organic compounds from aqueous streams. The Company will also continue to seek out promising compounds and innovative technologies, developed mainly by our internal research team, to incorporate into our product lines.

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For the years ended December 31, 2014, 2013 and 2012, the Company spent approximately \$24.4 million, \$20.1 million and \$20.2 million, respectively, on research and development. The Company's research and development spending for 2014, 2013 and 2012 was approximately 1.4%, 2.0% and 2.0% of net sales, respectively.

The Company maintains its primary research facilities in Bethlehem and Easton, Pennsylvania; Broussard, Louisiana; and Hoffman Estates, Illinois. It also has research and development facilities in China, England, Germany, Ireland, Japan and Turkey. Approximately 194 employees worldwide are engaged in research and development. In addition, the Company has access to some of the world's most advanced papermaking and paper coating pilot facilities.

#### Patents and Trademarks

The Company owns or has the right to use approximately 507 patents and approximately 1,705 trademarks related to its business. Our patents expire between 2015 and 2036. Our trademarks continue indefinitely. The Company believes that its rights under its existing patents, patent applications and trademarks are of value to its operations, but no one patent, application or trademark is material to the conduct of the Company's business as a whole.

#### Insurance

The Company maintains liability and property insurance and insurance for business interruption in the event of damage to its production facilities and certain other insurance covering risks associated with its business. The Company believes such insurance is adequate for the operation of its business. There is no assurance that in the future the Company will be able to maintain the coverage currently in place or that the premiums will not increase substantially.

#### **Employees**

At December 31, 2014, the Company employed 4,464 persons, of whom 2,109 were employed outside of the United States.

# Environmental, Health and Safety Matters

The Company's operations are subject to federal, state, local and foreign laws and regulations relating to the environment and health and safety. In particular, we are subject to certain requirements under the Clean Air Act. In addition, certain of the Company's operations involve and have involved the use and release of substances that have been and are classified as toxic or hazardous within the meaning of these laws and regulations. Environmental operating permits are, or may be, required for certain of the Company's operations and such permits are subject to modification, renewal and revocation. We are also subject to land reclamation requirements. The Company regularly monitors and reviews its operations, procedures and policies for compliance with these laws and regulations. The Company believes its operations are in substantial compliance with these laws and regulations and that there are no violations that would have a material effect on the Company. Despite these compliance efforts, some risk of environmental and other damage is inherent in the Company's operations, as it is with other companies engaged in similar businesses, and there can be no assurance that material violations will not occur in the future. The cost of compliance with these laws and regulations is not expected to have a material adverse effect on the Company.

Laws and regulations are subject to change. See Item 1A, Risk Factors, for information regarding the possible effects that compliance with new environmental laws and regulations, including those relating to climate change, may have on our businesses and operating results.

Under the terms of certain agreements entered into in connection with the Company's initial public offering in 1992, Pfizer Inc. ("Pfizer") agreed to indemnify the Company against certain liabilities being retained by Pfizer and its subsidiaries including, but not limited to, pending lawsuits and claims, and any lawsuits or claims brought at any time in the future alleging damages or injury from the use, handling of or exposure to any product sold by Pfizer's specialty minerals business prior to the closing of the initial public offering.

#### **Available Information**

The Company maintains an internet website located at http://www.mineralstech.com. Its reports on Forms 10-K, 10-Q and 8-K, and amendments to those reports, as well as its Proxy Statement and filings under Section 16 of the Securities Exchange Act of 1934 are available free of charge through the Investor Relations page of its website, as soon as reasonably practicable after they are filed with the Securities and Exchange Commission ("SEC"). Investors may access these reports through the Company's website by navigating to "Investor Relations" and then to "SEC Filings."

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Financial information concerning our business segments and the geographical areas in which we operate appears in the Notes to the Consolidated Financial Statements. Information related to our executive officers is included in Item 10, "Directors, Executive Officers and Corporate Governance."

#### Item 1A. Risk Factors

Our business faces significant risks. Set forth below are all risks that we believe are material at this time. Our business, financial condition and results of operations could be materially adversely affected by any of these risks. These risks should be read in conjunction with the other information in this Annual Report on Form 10-K.

Worldwide general economic, business, and industry conditions have had, and may continue to have, an adverse effect on the Company's results.

The global economic instability of the past few years has caused, among other things, declining consumer and business confidence, volatile raw material prices, instability in credit markets, high unemployment, fluctuating interest and exchange rates, and other challenges. The Company's business and operating results have been and may continue to be adversely affected by these global economic conditions. The Company's customers and potential customers may experience deterioration of their businesses, cash flow shortages, and difficulty obtaining financing. As discussed below, the industries we serve have in the past been adversely affected by the uncertain global economic climate due to the cyclical nature of their businesses. As a result, existing or potential customers may reduce or delay their growth and investments and their plans to purchase products, and may not be able to fulfill their obligations in a timely fashion. Further, suppliers could experience similar conditions, which could affect their ability to fulfill their obligations to the Company. Adversity within capital markets may also impact the Company's results of operations by negatively affecting the amount of expense the Company records for its pension and other postretirement benefit plans. Actuarial valuations used to calculate income or expense for the plans reflect assumptions about financial market and other economic conditions – the most significant of which are the discount rate and the expected long-term rate of return on plan assets. Such actuarial valuations may change based on changes in key economic indicators. Global economic markets remain uncertain, and there can be no assurance that market conditions will improve in the near future. Future weakness in the global economy could materially and adversely affect our business and operating results.

Our customers' businesses are cyclical or have changing regional demands. Our operations are subject to these trends and we may not be able to mitigate these risks.

Our Performance Materials segment's sales are predominantly derived from the metalcasting market. The metalcasting market is dependent upon the demand for castings for automobile components, farm and construction equipment, oil and gas production equipment, power generation turbine castings, and rail car components. Many of these types of equipment are sensitive to fluctuations in demand during periods of recession or tough economies, which ultimately may affect the demand for our construction technologies and performance materials segments' products and services.

In the paper industry, which is served by our Paper PCC product line, production levels for uncoated freesheet within North America and Europe, our two largest markets are projected to continue to decrease. The reduced demand for premium writing paper products has also caused the paper industry to experience a number of recent bankruptcies and paper mill closures, including among our customers.

Our Refractories segment primarily serves the steel industry. North American and European steel production continues to be affected by global volatility and overcapacity in the market.

Our customers' demand for our Energy Services segment's products and services are affected by oil and natural gas production activities, which are heavily influenced by the benchmark price of these commodities. Oil and natural gas prices decreased significantly in 2014, which we expect will cause exploration companies to reduce their capital expenditures and production and exploration activities. This has the effect of decreasing the demand and increasing competition for the services we provide. In addition, oil and natural gas exploration and production activities depend heavily on the location of these natural resources within the earth's geology and geographic location as well as technologies available to profitably extract them. Thus, the performance of our Energy Services segment is affected by changes in technologies, locations of customers' targeted reserves, and competition in various geographic markets.

Our Construction Technologies segment's sales are predominantly derived from the commercial construction and infrastructure markets. In addition, our Processed Minerals and Specialty PCC product lines are affected by the domestic building and construction markets as well as the automotive market.

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Demand for our products is subject to trends in these markets. During periods of economic slowdown, our customers often reduce their capital expenditures and defer or cancel pending projects. Such developments occur even amongst customers that are not experiencing financial difficulties. In addition, these trends could cause our customers to face liquidity issues or bankruptcy, which could deteriorate the aging of our accounts receivable, increase our bad debt exposure and possibly trigger impairment of assets or realignment of our businesses. The Company has taken steps to reduce its exposure to variations in its customers' businesses, including by diversifying its portfolio of products and services; through geographic expansion, and by structuring most of its long-term satellite PCC contracts to provide a degree of protection against declines in the quantity of product purchased, since the price per ton of PCC generally rises as the number of tons purchased declines. In addition, many of the Company's product lines lower its customers' costs of production or increase their productivity, which should encourage them to use its products. However, there can be no assurance that these efforts will mitigate the risks of our dependence on these industries. Continued weakness in the industries we serve has had, and may in the future have, an adverse effect on sales of our products and our results of operations. A continued or renewed economic downturn in one or more of the industries or geographic regions that the Company serves, or in the worldwide economy, could cause actual results of operations to differ materially from historical and expected results.

The Company's results could be adversely affected if it is unable to effectively achieve and implement its growth initiatives.

Sales and income growth of the Company depends upon a number of uncertain events, including the outcome of the Company's strategies of increasing its penetration into geographic markets such as the BRIC (Brazil, Russia, India, China) countries and other Asian and Eastern European countries; increasing its penetration into product markets such as the market for papercoating pigments and the market for groundwood paper pigments; increasing sales to existing PCC customers by increasing the amount of PCC used per ton of paper produced; developing, introducing and selling new products such as the FulFill® family of products for the paper industry. Difficulties, delays or failure of any of these strategies could affect the future growth rate of the Company. Our strategy also anticipates growth through future acquisitions. However, our ability to identify and consummate any future acquisitions on terms that are favorable to us may be limited by the number of attractive acquisition targets, internal demands on our resources and our ability to obtain financing. Our success in integrating newly acquired businesses will depend upon our ability to retain key personnel, avoid diversion of management's attention from operational matters, and integrate general and administrative services. In addition, future acquisitions could result in the incurrence of additional debt, costs and contingent liabilities. Integration of acquired operations may take longer, or be more costly or disruptive to our business, than originally anticipated, and it is also possible that expected synergies from future acquisitions may not materialize. We also may incur costs and divert management attention with regard to potential acquisitions that are never consummated.

The acquisition of AMCOL International Corporation exposes the Company to a number of risks and uncertainties, the occurrence of any of which could materially adversely affect the Company or the future results of the combined company.

On May 9, 2014, the Company acquired AMCOL International Corporation ("AMCOL"). The success of this acquisition will depend, in part, on our ability to realize anticipated benefits from combining the businesses of the Company and AMCOL. If we are not able to successfully integrate the businesses of the Company and AMCOL, the anticipated benefits of the proposed acquisition may not be realized fully or at all or may take longer to realize than expected. The risks and uncertainties relating to realizing the anticipated benefits of the transaction include:

that we have incurred and may continue to incur a number of non-recurring costs associated with combining the operations of the Company and AMCOL;

that the combined company has undergone, and is expected to continue to undergo, certain internal restructurings and reorganizations in order to realize certain potential synergies, which may affect our ability to maintain our relationships with customers and suppliers, retain key personnel, avoid diversion of management's attention from operational matters, and efficiently integrate general and administrative services; and

that the combined company may not be able to achieve the synergies expected from the transaction, or that there may be delays in achieving any such synergies.

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Any of these risks and uncertainties could have a material adverse effect on us or the future results of the combined company.

Servicing the Company's debt will require a significant amount of cash. This could reduce the Company's flexibility to respond to changing business and economic conditions or fund capital expenditures or working capital needs. Our ability to generate cash depends on many factors beyond our control.

At December 31, 2014, the Company had outstanding borrowings of \$1.5 billion pursuant to our senior secured credit facility, largely to finance the acquisition of AMCOL. This financing will require a significant amount of cash to make interest payments. Further, borrowings under our senior secured credit facility are based on LIBOR interest rates, which could result in higher interest expense in the event of an increase in interest rates. Our ability to pay interest on our debt and to satisfy our other debt obligations will depend in part upon our future financial and operating performance and upon our ability to renew or refinance borrowings. Prevailing economic conditions and financial, business, competitive, regulatory and other factors, many of which are beyond our control, will affect our ability to make these payments. We cannot guarantee that our business will generate sufficient cash flow from operations or that future borrowings will be available to us in an amount sufficient to enable us to fund our liquidity needs. If we are unable to generate sufficient cash flow to meet our debt service obligations, we will have to pursue one or more alternatives, such as reducing or delaying capital or other expenditures, refinancing debt, selling assets, or raising equity capital. Further, the requirement to make significant interest payments may reduce the Company's flexibility to respond to changing business and economic conditions or fund capital expenditure or working capital needs and may increase the Company's vulnerability to adverse economic conditions.

Our senior secured credit facility contains various covenants that limit our ability to take certain actions and our revolving credit facility, if used, also requires us to meet financial maintenance tests, failure to comply with which could have a material adverse effect on us.

The agreement governing our senior secured credit facility contains a number of significant covenants that, among other things, limit our ability to: incur additional debt or liens, consolidate or merge with any other person, alter the business we conduct, make investments, use the proceeds of asset sales or sale/leaseback transactions, enter into hedging arrangements, pay dividends or make certain other restricted payments, create dividend or other payment restrictions with respect to subsidiaries, and enter into transactions with affiliates. In addition, our revolving credit facility, if used, requires us to comply with specific financial ratios, including a maximum net leverage ratio, under which we are required to achieve specific financial results. Our ability to comply with these provisions may be affected by events beyond our control. A breach of any of these covenants would result in a default under the agreements. In the event of any default, our lenders could elect to declare all amounts borrowed under the agreements, together with accrued interest thereon, to be due and payable. In such an event, we cannot assure you that we would have sufficient assets to pay debt then outstanding under the agreements governing our debt. Any future refinancing of the senior secured credit facility is likely to contain similar restrictive covenants.

The Company's sales of PCC could be adversely affected by our failure to renew or extend long term sales contracts for our satellite operations.

The Company's sales of PCC to paper customers are typically pursuant to long-term evergreen agreements, initially ten years in length, with paper mills where the Company operates satellite PCC plants. Sales pursuant to these contracts represent a significant portion of our worldwide Paper PCC sales, which were \$454.5 million in 2014, or approximately 26% of the Company's net sales. The terms of many of these agreements have been extended or renewed in the past, often in connection with an expansion of the satellite plant. However, failure of a number of the Company's customers to renew or extend existing agreements on terms as favorable to the Company as those currently in effect, or at all, could have a substantial adverse effect on the Company's results of operations, and could also result

in impairment of the assets associated with the PCC plant.

The Company's sales could be adversely affected by consolidation in customer industries, principally paper, foundry and steel.

Several consolidations in the paper industry have taken place in recent years and such consolidation could continue in the future. These consolidations could result in partial or total closure of some paper mills where the Company operates PCC satellites. Such closures would reduce the Company's sales of PCC, except to the extent that they resulted in shifting paper production and associated purchases of PCC to another location served by the Company. Similarly, consolidations have occurred in the foundry and steel industries. Such consolidations in the major industries we serve concentrate purchasing power in the hands of a smaller number of manufacturers, enabling them to increase pressure on suppliers, such as the Company. This increased pressure could have an adverse effect on the Company's results of operations in the future.

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The Company is subject to stringent regulation in the areas of environmental, health and safety, and tax, and may incur unanticipated costs or liabilities arising out of claims for various legal, environmental and tax matters or product stewardship issues.

The Company's operations are subject to international, federal, state and local governmental environmental, health and safety, tax and other laws and regulations. We have expended, and may be required to expend in the future, substantial funds for compliance with such laws and regulations. In addition, future events, such as changes to or modifications of interpretations of existing laws and regulations, or enforcement polices, or further investigation or evaluation of the potential environmental impacts of operations or health hazards of certain products, may affect our mining rights or give rise to additional compliance and other costs that could have a material adverse effect on the Company. Further, certain of our customers are subject to various federal and international laws and regulations relating to environmental and health and safety matters, especially our Energy Services customers who are subject to drilling permits, waste water disposal and other regulations. To the extent that these laws and regulations affecting our customers change, demand for our products and services could also change and thereby affect our financial results. State, national, and international governments and agencies have been evaluating climate-related legislation and regulation that would restrict emissions of greenhouse gases in areas in which we conduct business, and some such legislation and regulation have already been enacted or adopted. Enactment of climate-related legislation or adoption of regulation that restrict emissions of greenhouse gases in areas in which we conduct business could have an adverse effect on our operations or demand for our products. Our manufacturing processes, particularly the manufacturing process for PCC, use a significant amount of energy and, should energy prices increase as a result of such legislation or regulation, we may not be able to pass these increased costs on to purchasers of our products. We cannot predict if or when currently proposed or additional laws and regulations regarding climate change or other environmental or health and safety concerns will be enacted or adopted. Moreover, changes in tax regulation and international tax treaties could reduce the financial performance of our foreign operations.

The Company is currently a party in various litigation matters and tax and environmental proceedings and faces risks arising from various unasserted litigation matters, including, but not limited to, product liability, patent infringement, antitrust claims, and claims for third party property damage or personal injury stemming from alleged environmental torts. Failure to appropriately manage safety, human health, product liability and environmental risks associated with the Company's products and production processes could adversely impact the Company's employees and other stakeholders, the Company's reputation and its results of operations. Public perception of the risks associated with the Company's products and production processes could impact product acceptance and influence the regulatory environment in which the Company operates. While the Company has procedures and controls to manage these risks, carries liability insurance, which it believes to be appropriate to its businesses, and has provided reserves for current matters, which it believes to be adequate, an unanticipated liability, arising out of a current matter or proceeding or from the other risks described above, could have a material adverse effect on the Company's financial condition or results of operations.

Delays or failures in new product development could adversely affect the Company's operations.

The Company's future business success will depend in part upon its ability to maintain and enhance its technological capabilities, to respond to changing customer needs, and to successfully anticipate or respond to technological changes on a cost-effective and timely basis. The Company is engaged in a continuous effort to develop new products and processes in all of its product lines. Difficulties, delays or failures in the development, testing, production, marketing or sale of such new products could cause actual results of operations to differ materially from our expected results.

The Company's ability to compete is dependent upon its ability to defend its intellectual property against inappropriate disclosure and infringement.

The Company's ability to compete is based in part upon proprietary knowledge, both patented and unpatented. The Company's ability to achieve anticipated results depends in part on its ability to defend its intellectual property against inappropriate disclosure as well as against infringement. In addition, development by the Company's competitors of new products or technologies that are more effective or less expensive than those the Company offers could have a material adverse effect on the Company's financial condition or results of operations.

The Company's operations could be impacted by the increased risks of doing business abroad.

The Company does business in many areas internationally. Approximately 42% of our sales in 2014 were derived from outside the United States and we have significant production facilities which are located outside of the United States. We have in recent years expanded our operations in emerging markets, and we plan to continue to do so in the future, particularly in China, India, Brazil, and Eastern Europe. Some of our operations are located in areas that have experienced political or economic instability, including Indonesia, Malaysia, Nigeria, Egypt, Saudi Arabia, Brazil, Thailand, China and South Africa. As the Company expands its operations overseas, it faces increased risks of doing business abroad, including inflation, fluctuation in interest rates, changes in applicable laws and regulatory requirements, export and import restrictions, tariffs, nationalization, expropriation, limits on repatriation of funds, civil unrest, terrorism, unstable governments and legal systems, and other factors. Many of these risks are beyond our control and can lead to sudden, and potentially prolonged, changes in demand for our products, difficulty in enforcing agreements, and losses in the realizability of our assets. Adverse developments in any of the areas in which we do business could cause actual results to differ materially from historical and expected results. In addition, a significant portion of our raw material purchases and sales outside the United States are denominated in foreign currencies, and liabilities for non-U.S. operating expenses and income taxes are denominated in local currencies. Accordingly, reported sales, net earnings, cash flows and fair values have been and, in the future, will be affected by changes in foreign currency exchange rates. Our overall success as a global business depends, in part, upon our ability to succeed in differing legal, regulatory, economic, social and political conditions. We cannot assure you that we will implement policies and strategies that will be effective in each location where we do business.

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The Company's operations are dependent on the availability of raw materials and access to ore reserves at its mining operations. Increases in costs of raw materials, energy, or shipping could adversely affect our financial results.

The Company depends in part on having an adequate supply of raw materials for its manufacturing operations, particularly lime and carbon dioxide for the PCC product line, and magnesia and alumina for its Refractory operations. Purchase prices and availability of these critical raw materials are subject to volatility. At any given time, we may be unable to obtain an adequate supply of these critical raw materials on a timely basis, on price and other terms, or at all. While most such raw materials are readily available, the Company purchases approximately 45% of its magnesia requirements from sources in China. The majority of magnesia requirements were purchased from other countries. The price and availability of magnesia have fluctuated in the past and they may fluctuate in the future. Price increases for certain other of our raw materials, including petrochemical products, as well as increases in energy prices, have also affected our business. Our production processes consume a significant amount of energy, primarily electricity, diesel fuel, natural gas and coal. We use diesel fuel to operate our mining and processing equipment and our freight costs are heavily dependent upon fuel prices and surcharges. Energy costs also affect the cost of raw materials. On a combined basis, these factors represent a large exposure to petrochemical and energy products which may be subject to significant price fluctuations. The contracts pursuant to which we construct and operate our satellite PCC plants generally adjust pricing to reflect the pass-through of increases in costs resulting from inflation, including energy. However, there is a time lag before such price adjustments can be implemented. The Company and its customers will typically negotiate reasonable price adjustments in order to recover these escalating costs, but there can be no assurance that we will be able to recover increasing costs through such negotiations.

The Company also depends on having adequate access to ore reserves of appropriate quality at its mining operations. There are numerous uncertainties inherent in estimating ore reserves including subjective judgments and determinations that are based on available geological, technical, contract and economic information.

The Company relies on shipping bulk cargos of bentonite from the United States, Turkey and China to customers, as well as our own subsidiaries, and we are sensitive to our ability to recover these shipping costs. In the last few years, bulk cargo shipping rates have been very volatile, and, to a lesser extent, the availability of bulk cargo containers has been suspect. If we cannot secure our container requirements or offset additional shipping costs with price increases to customers, our profitability could be impacted. We are also subject to other shipping risks. In particular, rail service interruptions have affected our ability to ship, and the availability of rail service, and our ability to recover increased rail costs, may be beyond our control.

The Company operates in very competitive industries, which could adversely affect our profitability.

The Company has many competitors. Some of our principal competitors have greater financial and other resources than we have. Accordingly, these competitors may be better able to withstand economic downturns and changes in conditions within the industries in which we operate and may have significantly greater operating and financial flexibility than we do. We also face competition for some of our products from alternative products, and some of the competition we face comes from competitors in lower-cost production countries like China and India. As a result of the competitive environment in the markets in which we operate, we currently face and will continue to face pressure on the sales prices of our products from competitors, which could reduce profit margins.

Production facilities are subject to operating risks and capacity limitations that may adversely affect the Company's financial condition or results of operations.

The Company is dependent on the continued operation of its production facilities. Production facilities are subject to hazards associated with the manufacturing, handling, storage, and transportation of chemical materials and products, including pipeline leaks and ruptures, explosions, fires, inclement weather and natural disasters, mechanical failure,

unscheduled downtime, labor difficulties, transportation interruptions, and environmental risks. We maintain property, business interruption and casualty insurance but such insurance may not cover all risks associated with the hazards of our business and is subject to limitations, including deductibles and maximum liabilities covered. We may incur losses beyond the limits, or outside the coverage, of our insurance policies. Further, from time to time, we may experience capacity limitations in our manufacturing operations. In addition, if we are unable to effectively forecast our customers' demand, it could affect our ability to successfully manage operating capacity limitations. These hazards, limitations, disruptions in supply and capacity constraints could adversely affect financial results.

Operating Results for some of our segments are seasonal.

Our Energy Services and Construction Technologies segments are affected by seasonal weather patterns. A majority of our Energy Services revenues are derived from the Gulf of Mexico and surrounding states, which are susceptible to hurricanes that typically occur June 1st through November 30th. In addition, it is affected by customers' demands for natural gas. Natural gas is affected by weather patterns as colder winters increase the demand for natural gas to heat homes and warmer summers increase the demand for natural gas to fuel generators providing electricity to run air conditioners. Actual or threatened hurricanes or changes in the demand for natural gas can result in volatile demand for services provided by our Energy Services segment. Our Construction Technologies segment is affected by weather patterns which determine the feasibility of construction activities. Typically, less construction activity occurs in winter months and thus this segment's revenues tend to be greatest in the second and third quarters when weather patterns in our geographic markets are more conducive to construction activities. Our Processed Minerals product line is subject to similar seasonal patterns.

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Item 1B. Unresolved Staff Comments

None.

### Item 2. Properties

Set forth below is the location of, and the main customer served by, each of the Company's satellite PCC plants in operation or under construction as of December 31, 2014. Generally, the land on which each satellite PCC plant is located is leased at a nominal amount by the Company from the host paper mill pursuant to a lease, the term of which generally runs concurrently with the term of the PCC production and sale agreement between the Company and the host paper mill.

Location Principal Customer

**United States** 

Alabama, Courtland International Paper Company

Alabama, Jackson Boise Inc.

Alabama, Selma International Paper Company

Arkansas, Ashdown Domtar Inc.

Florida, Pensacola Georgia-Pacific Corporation (Koch Industries)

Kentucky, Wickliffe NewPage Corporation

Louisiana, Port Hudson Georgia-Pacific Corporation (Koch Industries)

Maine, Jay Verso Paper Holdings LLC

Maine, Madison Madison Paper Industries

Michigan, Quinnesec Verso Paper Holdings LLC

Minnesota, Cloquet Sappi Ltd.
Minnesota, International Falls Boise Inc.

New York, Ticonderoga International Paper Company

Ohio, Chillicothe P.H. Glatfelter Co.
Ohio, West Carrollton Appleton Papers Inc.

South Carolina, Eastover International Paper Company

Washington, Camas Georgia-Pacific Corporation (Koch Industries)

Washington, Longview North Pacific Paper Corporation

Washington, Wallula Boise Inc.

Wisconsin, Kimberly Appleton Coated

Wisconsin, Park Falls Flambeau River Papers LLC

Wisconsin, Superior New Page Corporation
Wisconsin, Wisconsin Rapids New Page Corporation

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Location Principal Customer

International

Brazil, Guaiba Aracruz Celulose S.A.

Brazil, Jacarei Ahlstrom-VCP Industria de Papeis Especialis Ltda.

Brazil, Luiz Antonio International Paper do Brasil Ltda.
Brazil, Mucuri Suzano Papel e Celulose S. A.
Brazil, Suzano Suzano Papel e Celulose S. A.

Canada, St. Jerome, Quebec Cascades Fine Papers Group Inc.

Canada, Windsor, Quebec Domtar Inc.

China, Dagang <sup>1</sup> Gold East Paper (Jiangsu) Company Ltd.
China, Zhenjiang <sup>1</sup> Gold East Paper (Jiangsu) Company Ltd.
China, Suzhou<sup>1</sup> Gold HuaSheng Paper Company Ltd.

China, Henan<sup>2</sup> Henan Jianghe Paper Co., Ltd.

China, Guangxi<sup>1, 2</sup> Nanning Jindaxing Paper Industry Company Ltd

China, Shandong<sup>2</sup> Shandong Sun Paper Industry Joint Stock Company Ltd

Finland, Äänekoski M-real Corporation
Finland, Tervakoski Trierenberg Holding

France, Alizay Double A Paper Company Ltd.

France, Docelles UPM Corporation

France, Saillat Sur Vienne International Paper Company

Germany, Schongau UPM Corporation

India, Ballarshah<sup>1</sup> Ballarpur Industries Ltd.
India, Dandeli West Coast Paper Mill Ltd.
India, Gaganapur<sup>1</sup> Ballarpur Industries Ltd.

India, Saila Khurd ABC Paper Ltd.

India, Rayagada<sup>1</sup> JK Paper

Indonesia, Perawang<sup>1</sup> PT Indah Kiat Pulp and Paper Corporation

Japan, Shiraoi<sup>1</sup> Nippon Paper Group Inc.

Malaysia, Sipitang Ballarpur Industries Ltd.

Mexico, Anahuac Copamex, S.A. de C.V.

Poland, Kwidzyn International Paper – Kwidzyn, S.A

Portugal, Figueira da Foz<sup>1</sup> Soporcel – Sociedade Portuguesa de Papel, S.A.

Slovakia, Ruzomberok Mondi Business Paper SCP South Africa, Merebank<sup>1</sup> Mondi Paper Company Ltd.

Thailand, Namphong Phoenix Pulp & Paper Public Co. Ltd.

Thailand, Tha Toom<sup>1</sup> Double A Paper Company Ltd.

Thailand, Tha Toom 2<sup>1</sup> Double A Paper Company Ltd.

<sup>&</sup>lt;sup>1</sup>These plants are owned through joint ventures. <sup>2</sup>These plants are under construction.

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The Company also owned and operated at December 31, 2014, 7 plants engaged in the mining, processing and/or production of lime, limestone, precipitated calcium carbonate and talc, as well as owned or leased and operated 17 manufacturing facilities worldwide within the Refractories segment. The Company's corporate headquarters, sales offices, research laboratories, plants and other facilities are owned by the Company except as otherwise noted. Set forth below is certain information relating to the Company's plants and office and research facilities:

Location	Facility	Product Line
United States		
Arizona, Pima County	Plant; Mine <sup>1</sup>	Limestone
California, Lucerne Valley	Plant; Mine	Limestone
Connecticut, Canaan	Plant; Mine	Limestone, Metallurgical Wire/Calcium
Indiana, Portage	Plant	Refractories/Shapes
Louisiana, Baton Rouge	Plant	Monolithic Refractories
Massachusetts, Adams	Plant; Mine	Limestone, Lime, PCC
Montana, Dillon	Plant; Mine	Talc
New York, New York	Headquarters <sup>2</sup>	All Company Products
Ohio, Bryan	Plant	Monolithic Refractories
Ohio, Dover	Plant	Monolithic Refractories/Shapes
Pennsylvania, Bethlehem	Administrative Office; Research laboratories; Sales Offices	All Company Products
Pennsylvania, Easton	Administrative Office; Research laboratories; Plant; Sales Offices	All Company Products
Pennsylvania, Slippery Rock	Plant; Sales Offices	Monolithic Refractories/Shapes
Texas, Bay City	Plant	Talc
International		
Australia, Carlingford	Sales Office <sup>2</sup>	Monolithic Refractories
Belgium, Brussels	Sales Office <sup>2</sup> /Administrative Office	Monolithic Refractories/PCC
Brazil, Sao Jose dos Campos	Sales Office <sup>2</sup> /Administrative Office	PCC
Canada, Pt. Claire	Administrative Office	PCC/Monolithic Refractories
China, Shanghai	Administrative Office/Sales Office	PCC/Monolithic Refractories
China, Suzhou	Plant/Sales Office/Research laboratories	PCC/Monolithic Refractories
Germany, Duisburg	Plant/Sales Office/Research laboratories	Laser Scanning Instrumentation/ Probes/Monolithic Refractories
Holland, Hengelo	Plant/Sales Office	Metallurgical Wire
India, Mumbai	Sales Office <sup>2</sup> /Administrative Office	PCC/Monolithic Refractories/ Metallurgical Wire

Ireland, Cork

Plant; Administrative Office<sup>2</sup>/ Research

Monolithic Refractories

laboratories Monolitnic Rel

Italy, BresciaSales OfficeMonolithic Refractories/ShapesItaly, NavePlantMonolithic Refractories/Shapes

Japan, Gamagori Plant/Research laboratories Monolithic Refractories/Shapes, Calcium

Japan, Tokyo Sales Office Monolithic Refractories

Singapore Sales Office<sup>2</sup>/Administrative Office PCC

Spain, Santander Sales Office<sup>2</sup>/Administrative Office Monolithic Refractories

South Africa,
Pietermaritzburg

Plant

Monolithic Refractories

South Africa, Johannesburg

Sales Office/Administrative Office<sup>2</sup>

Monolithic Refractories

Turkey, Gebze Plant/Research Laboratories Monolithic Refractories/Shapes/

Application Equipment

Turkey, Istanbul Sales Office/Administrative Office Monolithic Refractories

Turkey, Kutahya Plant Monolithic Refractories/Shapes

United Kingdom,
Plant
PCC, Lime

Lifford Frank FCC, Ellife

United Kingdom,
Rotherham

Plant/Sales Office

Monolithic Refractories/Shapes

<sup>&</sup>lt;sup>1</sup>This plant and quarry is leased to another company.

Leased by the Company. The facilities in Cork, Ireland, are operated pursuant to a 99-year lease, the term of which <sup>2</sup>commenced in 1963. The Company's headquarters in New York, New York, are held under a lease which expires in 2021.

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As a part of AMCOL acquisition, the Company acquired following principal plants, mines and other facilities, all of which are owned, except as noted below.

Location	Facility	Product Line
PERFORMANCE MATERIALS		
Colony, WY	Plant; Mine	Metalcasting, pet litter, personal care, specialty and basic minerals products
Hoffman Estates, IL (1)(2)	Research laboratories; Administrative office	
Lovell, WY (1)	Plant; Mine	Basic minerals, Specialty and pet care products
Sandy Ridge, AL	Plant; Mine	Metalcasting, basic minerals and specialty products
Scottsbluff, NE	Transportation terminal	
Chao Yang, Liaoning, China	Plant; Mine	Metalcasting and fabric care products
Enez, Turkey	Plant; Mine	Metalcasting, specialty and basic minerals products
Laemchabang, Thailand	Plant	Metalcasting and fabric care products
Ruighoek Farm, Northwest Province, South Africa	Plant; Mine	Metalcasting and basic minerals products
Yangbuk-Myeun, Kyeung-buk, South Korea	Plant; Mine	Metalcasting products
Tianjin, China	Plant; Mine; Research laboratories	Metalcasting and fabric care products
Winsford, Cheshire, U.K.	Plant, Research laboratories	Fabric care and other products
CONSTRUCTION TECHNOLOGI	IES	
Cartersville, GA	Plant	Environmental products and other building materials products
Lovell, WY (1)	Plant	Environmental and building materials products
Birkenhead, Merseyside, U.K. (1) (2)	Plant, Research laboratories	Environmental products
Cheste, Spain	Plant	Environmental products
Pyeongtaek, Korea	Plant	Environmental, building materials and other products
Suzhou, China	Plant	Environmental and building materials products
Szczytno, Poland	Plant	Environmental products
ENERGY SERVICES		
Beckville, TX (2)	Operations base	Well testing services
Broussard, LA (2)	Operations base, Research laboratories	Filtration and well testing services
Covington, LA (2)	Headquarter, Administrative Office	

Driscoll, TX (2) Operations base Coil tubing services

Harvey, LA (2) Operations base Nitrogen sales and service

Kenamen, Malaysia (2) Operations base Filtration and well testing services

New Iberia, LA (2) Operations base Coil tubing services

<sup>&</sup>lt;sup>1</sup> Shared facilities between Performance Materials and Construction Technologies segments.

<sup>&</sup>lt;sup>2</sup>Certain offices and facilities are leased.

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The following table sets forth, for each of the quarries or mines we own or operate, our current estimate as to the amount of reserves such quarry or mine holds, based on the most recent mine plan, and its usage rate in 2014, by major mineral category.

	2014 Tons Usage (000s)	Total Tons of Reserves (000s)	Mining C	Clai	ms Unpatented	d	Leased	ı
Limestone	(0008)	(0008)	Owned				Leaseu	l.
Adams, MA	600	25,631	25,631		_		_	
Canaan, CT	470	20,042	20,042		_		_	
Lucerne Valley, CA	902	46,167	46,167		_		_	
Pima County, AZ	214	8,517	8,517		_		_	
TOTAL LIMESTONE	2,186	100,357	100,357		_		_	
TOTAL LIMESTONE	2,100	100,557	,	%	0	%	0	%
Talc			100	10	U	70	U	70
Taic								
Dillon, MT	153	2,791	2,791					
Dinon, WH	133	2,791	-	%	0	%	0	%
Sodium Bentonite*			100	70	U	70	U	70
Soutum Bentonite								
Australia		1,317					1,317	
Belle/Colony, WY/SD	883		2,826		10,369			
	663 477	52,899	-		10,309		39,70	
Lovell, WY	4//	28,752	14,168		,		3,187	
Other SD, WY, MT***	1 260	72,831	54,815		15,048		2,968	
TOTAL SODIUM BENTONITE	1,360	155,799	71,809	01	36,814	04	47,170	
Calcium Bentonite*			46	%	24	%	30	%
Chao Yang, Liaoning, China	-	1,305	-		-		1,305	
Nevada***	-	1,564	1,019		45		500	
Sandy Ridge, AL	79	5,755	1,706		-		4,049	
Turkey	130	3,958	-		-		3,958	
Vici, OK***	-	99	-		-		99	
TOTAL CALCIUM BENTONITE	209	12,681	2,725		45		9,911	
			21	%	0	%	78	%
Leonardite*								
Gascoyne, ND	61	2,426	-		1,740		686	
•					72	%	28	%
Chromite*								
Canada A Science		4.000	4.000					
South Africa	-	4,000	4,000	01	-	04	-	01
Other*			100	%	0	%	U	%
NY 1 students		200=			2.00=			
Nevada***	-	2,997			2,997		-	
			0	%	100	%	0	%

GRAND TOTALS 4,009 281,051 181,682 41,596 57,773 65 % 15 % 21 %

Our estimates of total reserves in the table above require us to make certain key assumptions. These assumptions relate to consistency of deposits in relation to drilling samples obtained with respect to both quantity and quality of reserves contained therein; the ratio of overburden to mineral deposits; any environmental or social impact of mining the minerals; and profitability of extracting those minerals, including haul distance to processing plants, applicability of minerals to various end markets and selling prices within those markets, and our past experiences in the deposits, several of which we have been operating in for many decades.

The Company believes that its facilities, which are of varying ages and are of different construction types, have been satisfactorily maintained, are in good condition, are suitable for the Company's operations and generally provide sufficient capacity to meet the Company's production requirements. Based on past loss experience, the Company believes it is adequately insured with respect to these assets and for liabilities likely to arise from its operations.

<sup>\*</sup>Mineral reserves acquired in AMCOL acquisition, tons usage represents activity from May 9, 2014, through December 31, 2014.

<sup>\*\*</sup>Quantity of reserves that would be owned if patent was granted.

<sup>\*\*\*</sup> Includes unassigned reserves which we expect will require additional expenditures for processing facilities.

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### Item 3. Legal Proceedings

The Company and its subsidiaries are the subject of various pending legal actions in the ordinary course of their businesses. Except as described below, none of such legal proceedings are material.

### Armada Litigation

On May 8, 2013, Armada (Singapore) PTE Limited, an ocean shipping company now in bankruptcy ("Armada") filed a case in federal court in the Northern District of Illinois against AMCOL International Corporation and certain of its subsidiaries (Armada (Singapore) PTE Limited v. AMCOL International Corp., et al., United States District Court for the Northern District of Illinois, Case No. 13 CV 3455). We acquired AMCOL and its subsidiaries on May 9, 2014. A co-defendant is Ashapura Minechem Limited, a company located in Mumbai, India ("AML"). During the relevant time period, 2008-2010, AMCOL owned slightly over 20% of the outstanding AML stock through December 2009, after which it owned approximately 19%. In 2008, AML entered into two contracts of affreightment ("COA") with Armada for over 60 ship loads of bauxite from India to China. After one shipment, AML made no further shipments, which led Armada to file arbitrations in London against AML, one for each COA. AML did not appear in the London arbitrations and default awards of approximately \$70 million were entered. The litigation filed by Armada against AMCOL and AML relates to these awards, which AML has not paid. The substance of the allegations by Armada is that AML and AMCOL engaged in illegal conduct to thwart Armada's efforts to collect the arbitration award. The counts in the complaint include both violations of the Illinois Fraudulent Transfer laws as well as federal RICO violations. The lawsuit seeks money damages as well injunctive relief. The litigation is in the discovery phase. Fact discovery and expert discovery is currently scheduled to last through June 12, 2015. At this time, considering this case is in the discovery phase, management cannot estimate potential losses (if any) and therefore has not established any provisions.

#### Bentonit União Nordeste Indústria e Comércio Ltda. arbitration

The Company's Construction Technologies segment is respondent in an arbitration requested by Bentonit União Nordeste Indústria e Comércio Ltda. ("BUN"), the Company's joint venture partner in Brazil, alleging a breach of the joint venture agreement and claiming, among other things, damages in the amount of 34 million Brazilian real. The arbitration is in an evidentiary phase and, based on the evidence to date, the Company believes that the BUN claim is unsubstantiated. At this time management anticipates that the amount of the Company's liability, if any, will not have a material effect on its financial position or results of operations.

# Silica and Asbestos Litigation

Certain of the Company's subsidiaries are among numerous defendants in a number of cases seeking damages for exposure to silica or to asbestos containing materials. The Company currently has 102 pending silica cases and 13 pending asbestos cases. These totals include 30 silica cases against AMCOL International Corporation and/or its subsidiary, American Colloid Company, that were pending on the date we acquired AMCOL. To date, 1,394 silica cases and 39 asbestos cases have been dismissed, not including any lawsuits against AMCOL or American Colloid Company dismissed prior to our acquisition of AMCOL. No new asbestos or silica cases were filed in the third quarter of 2014. Two new asbestos cases were filed in the fourth quarter of 2014.

Most of these claims do not provide adequate information to assess their merits, the likelihood that the Company will be found liable, or the magnitude of such liability, if any. Additional claims of this nature may be made against the Company or its subsidiaries. At this time management anticipates that the amount of the Company's liability, if any, and the cost of defending such claims, will not have a material effect on its financial position or results of operations.

The Company has not settled any silica or asbestos lawsuits to date (not including any that may have been settled by AMCOL prior to completion of the acquisition). We are unable to state an amount or range of amounts claimed in any of the lawsuits because state court pleading practices do not require identifying the amount of the claimed damage. The aggregate cost to the Company for the legal defense of these cases since inception continues to be insignificant. The majority of the costs of defense for these cases, excluding cases against AMCOL or American Colloid, are reimbursed by Pfizer Inc. pursuant to the terms of certain agreements entered into in connection with the Company's initial public offering in 1992. Of the 13 pending asbestos cases excluding the case against AMCOL / American Colloid, all allege liability based on products sold largely or entirely prior to the initial public offering, and for which the Company is therefore entitled to indemnification pursuant to such agreements. Our experience has been that the Company is not liable to plaintiffs in any of these lawsuits and the Company does not expect to pay any settlements or jury verdicts in these lawsuits.

#### **Environmental Matters**

On February 3, 2015 the Company received notice from the United States Environmental Protection Agency of alleged violations at its Canaan, Connecticut facility of reporting requirements under the Emergency Planning and Community-Right-to-Know Act. The proposed civil penalties for these alleged violations total \$163,632. The Company has scheduled a meeting with EPA during the First Quarter to discuss resolution of these alleged violations and proposed penalties.

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On April 9, 2003, the Connecticut Department of Environmental Protection issued an administrative consent order relating to our Canaan, Connecticut, plant where both our Refractories segment and Specialty Minerals segment have operations. We agreed to the order, which includes provisions requiring investigation and remediation of contamination associated with historic use of polychlorinated biphenyls ("PCBs") and mercury at a portion of the site. We have completed the required investigations and submitted several reports characterizing the contamination and assessing site-specific risks. We are awaiting regulators' approval of the risk assessment report, which will form the basis for a proposal by the Company concerning eventual remediation.

We believe that the most likely form of overall site remediation will be to leave the existing contamination in place (with some limited soil removal), encapsulate it, and monitor the effectiveness of the encapsulation. We anticipate that a substantial portion of the remediation cost will be borne by the United States based on its involvement at the site from 1942 – 1964, as historic documentation indicates that PCBs and mercury were first used at the facility at a time of U.S. government ownership for production of materials needed by the military. Pursuant to a Consent Decree entered on October 24, 2014, the United States and the Company have resolved the Company's claim for response costs for investigation and initial remediation activities at this facility through October 24, 2014. In accordance with that settlement agreement, the government has paid the Company \$2.3 Million. Contribution by the United States to any future costs of investigation or additional remediation has, by agreement, been left unresolved. Though the cost of the likely remediation remains uncertain pending completion of the phased remediation decision process, we have estimated that the Company's share of the cost of the encapsulation and limited soil removal described above would approximate \$0.4 million, which has been accrued as of December 31, 2014.

The Company is evaluating options for upgrading the wastewater treatment facilities at its Adams, Massachusetts plant. This work has been undertaken pursuant to an administrative Consent Order originally issued by the Massachusetts Department of Environmental Protection ("DEP") on June 18, 2002. This order was amended on June 1, 2009 and on June 2, 2010. The amended Order includes the investigation by January 1, 2022 of options for ensuring that the facility's wastewater treatment ponds will not result in unpermitted discharge to groundwater. Additional requirements of the amendment include the submittal by July 1, 2022 of a plan for closure of a historic lime solids disposal area. Preliminary engineering reviews completed in 2005 indicate that the estimated cost of wastewater treatment upgrades to operate this facility beyond 2024 may be between \$6 million and \$8 million. The Company estimates that the remaining remediation costs would approximate \$0.4 million, which has been accrued as of December 31, 2014.

# Item 4. Mine Safety Disclosures

The information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K is included in Exhibit 95 to this Annual Report on Form 10-K.

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PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Securities

The Company's common stock is traded on the New York Stock Exchange under the symbol "MTX". Information on market prices and dividends is set forth below.

	First	Second	Third	Fourth
2014 Quarters Market price range per share of common stock High Low	\$64.48 48.81	\$66.50 59.49	\$67.02 57.14	\$77.40 58.06
Close	63.57	65.01	63.45	69.45
Dividends paid per common share  2013 Quarters	\$0.05	\$0.05	\$0.05	\$0.05
Market price range per share of common stock				
High	\$43.04	\$43.12	\$49.03	\$60.40
Low	39.54	38.43	42.53	49.28
Close	41.51	41.34	48.95	60.07
Dividends paid per common share	\$0.05	\$0.05	\$0.05	\$0.05

### **Equity Compensation Plan Information**

The following table summarizes information about our equity compensation plans as of December 31, 2014. All outstanding awards relate to our common stock.

Plan Category	Number of securities to be issued upon exercise of outstanding options	Weighted average exercise price of outstanding options	Number of securities remaining available for future issuance
Equity compensation plans approved by security holders <sup>1</sup>	951,079	\$ 37.46	996,586
Total	951,079	\$ 37.46	996,586

<sup>&</sup>lt;sup>1</sup> The Company's only equity compensation plan has been approved by the Company's stockholders.

# Issuer Purchases of Equity Securities

On September 19, 2013, the Company's Board of Directors authorized the Company's management to repurchase, at its discretion, up to \$150 million of the Company's shares over a two-year period commencing on October 2, 2013. As of December 31, 2014, 139,900 shares have been repurchased under this program for \$7.5 million, or an average price of approximately \$53.33 per share. The Company has not repurchased any shares during the twelve months ended

December 31, 2014.

On January 21, 2015, the Company's Board of Directors declared a regular quarterly dividend on its common stock of \$0.05 per share. No dividend will be payable unless declared by the Board and unless funds are legally available for payment thereof.

On February 10, 2015, the last reported sales price on the NYSE was \$68.96 per share. As of February 5, 2015, there were approximately 160 holders of record of the common stock.

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# Performance Graph

The graph below compares Minerals Technologies Inc.'s cumulative 1-year total shareholder return on common stock with the cumulative total returns of the S&P 500 index, the Dow Jones US Industrials index, the S&P Midcap 400 index, the Dow Jones US Basic Materials index, and the S&P MidCap 400 Materials Sector. The graph tracks the performance of a \$100 investment in our common stock and in each index (with the reinvestment of all dividends) from 12/31/2013 to 12/31/2014.

	12/13	12/14
Minerals Technologies Inc.	100.00	115.99
S&P Midcap 400	100.00	
Dow Jones US Industrials	100.00	107.30
Dow Jones US Basic Materials	100.00	103.39
S&P MidCap 400 Materials Sector	100.00	104.10

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The graph below compares Minerals Technologies Inc.'s cumulative 2-year total shareholder return on common stock with the cumulative total returns of the S&P 500 index, the Dow Jones US Industrials index, the S&P Midcap 400 index, the Dow Jones US Basic Materials index, and the S&P MidCap 400 Materials Sector. The graph tracks the performance of a \$100 investment in our common stock and in each index (with the reinvestment of all dividends) from 12/31/2012 to 12/31/2014.

	12/12	12/13	12/14
Minerals Technologies Inc.	100.00	151.13	175.29
S&P 500	100.00	132.39	150.51
S&P Midcap 400	100.00	133.50	146.54
Dow Jones US Industrials	100.00	140.61	150.88
Dow Jones US Basic Materials	100.00	120.38	124.46
S&P MidCap 400 Materials Sector	100.00	124.54	129.65

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The graph below compares Minerals Technologies Inc.'s cumulative 3-year total shareholder return on common stock with the cumulative total returns of the S&P 500 index, the Dow Jones US Industrials index, the S&P Midcap 400 index, the Dow Jones US Basic Materials index, and the S&P MidCap 400 Materials Sector. The graph tracks the performance of a \$100 investment in our common stock and in each index (with the reinvestment of all dividends) from 12/31/2011 to 12/31/2014.

	12/11	12/12	12/13	12/14
Minerals Technologies Inc.	100.00	141.93	214.50	248.78
S&P 500	100.00	116.00	153.58	174.60
S&P Midcap 400	100.00	117.88	157.37	172.74
Dow Jones US Industrials	100.00	117.87	165.74	177.84
Dow Jones US Basic Materials	100.00	110.49	133.00	137.51
S&P MidCap 400 Materials Sector	100.00	118.40	147.46	153.50

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The graph below compares Minerals Technologies Inc.'s cumulative 5-year total shareholder return on common stock with the cumulative total returns of the S&P 500 index, the Dow Jones US Industrials index, the S&P Midcap 400 index, the Dow Jones US Basic Materials index, and the S&P MidCap 400 Materials Sector. The graph tracks the performance of a \$100 investment in our common stock and in each index (with the reinvestment of all dividends) from 12/31/2009 to 12/31/2014.

	12/09	12/10	12/11	12/12	12/13	12/14
Minerals Technologies Inc.	100.00	120.53	104.51	148.33	224.18	260.01
S&P 500					180.44	
S&P Midcap 400	100.00	126.64	124.45	146.69	195.84	214.97
Dow Jones US Industrials	100.00	126.02	125.03	147.37	207.22	222.35
Dow Jones US Basic Materials	100.00	131.73	112.34	124.12	149.42	154.49
S&P MidCap 400 Materials Sector	100.00	127.80	119.50	141.49	176.22	183.44

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Item 6. Selected Financial Data

Net sales Cost of sales Production margin	Year Ende 2014 (in million \$1,725.0 1,289.6 435.4	2013 ns, excep	t pe	2012	2011 ata) \$1,032.9 818.7 214.2		2010 \$989.2 779.3 209.9
Marketing and administrative expenses Research and development expenses Insurance / litigation settlement (gain) Amortization expense of intangible assets acquired Acquisition related transaction and integration costs Restructuring and other costs	177.4 24.4 (2.3 ) 4.8 19.1 43.2	89.2 20.1	)	88.5 20.2 - -	91.2 19.3 - (0.4	)	89.4 19.4 - - 0.8
Income from operations	168.8	126.9		113.6	104.1		100.3
Interest expense, net Premium on early extinguishment of debt Other non-operating income (deductions), net Total non-operating deductions, net	(41.8 ) (5.8 ) 1.8 (45.8 )	(3.0	)	(0.1 ) - (2.9 ) (3.0 )	(0.6 - (2.1 (2.7	)	0.6 - (0.2 ) 0.4
Income from continuing operations before provision for taxes and equity in earnings Provision for taxes on income Equity in earnings of affiliates, net of tax	123.0 30.8 1.2	123.7 34.5		110.6 31.9	101.4 28.7		100.7 29.6
Income from continuing operations, net of tax Income (loss) from discontinued operations, net of tax Consolidated net income Less:	93.4 2.1 95.5	89.2 (5.8 83.4	)	78.7 (2.5 ) 76.2	72.7 (2.5 70.2	)	71.1 (1.2 ) 69.9
Net income attributable to non-controlling interests Net income attributable to Minerals Technologies Inc. (MTI)	3.1 \$92.4	3.1 \$80.3		2.1 \$74.1	2.7 \$67.5		3.0 \$66.9
Earnings (Loss) per share attributable to MTI:							
Basic: Income from continuing operations Income (loss) from discontinued operations Basic earnings per share	\$2.62 0.06 \$2.68	\$2.48 (0.17 \$2.31	)	\$2.17 (0.07) \$2.10	\$1.94 (0.07 \$1.87	)	\$1.83 (0.03) \$1.80
Diluted: Income from continuing operations Income (loss) from discontinued operations Diluted earnings per share	\$2.59 0.06 \$2.65	\$2.46 (0.16 \$2.30	)	\$2.16 (0.07) \$2.09	\$1.93 (0.07 \$1.86	)	\$1.82 (0.03) \$1.79
Cash dividends declared per common share	\$0.20	\$0.20		\$0.13	\$0.10		\$0.10

Shares used in computation of earnings per share:

	1	$c_1$					
Basic			34.5	34.7	35.3	36.0	37.2
Diluted			34.8	35.0	35.5	36.2	37.4

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	Year Ended December 31,							
	2014	2013	2012	2011	2010			
	(in millions)							
Working capital	\$571.7	\$634.2	\$514.4	\$539.4	\$520.3			
Total assets	3,226.7	1,217.5	1,211.2	1,165.0	1,116.1			
Long-term debt, net of unamortized discount	1,455.5	75.0	8.5	85.4	92.6			
Total debt	1,461.4	88.7	92.6	99.8	97.2			
Total shareholders' equity	888.9	874.4	813.7	768.0	782.7			

Item 7. Management's iscussion and Analysis of Financial Condition and Results of Operations

Cautionary Statement for "Safe Harbor" Purposes under the Private Securities Litigation Reform Act of 1995

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements made by or on behalf of the Company. This report contains statements that the Company believes may be "forward-looking statements" within the meaning of Section 21E of the Securities Exchange Act of 1934, particularly statements relating to the Company's objectives, plans or goals, future actions, future performance or results of current and anticipated products, sales efforts, expenditures, and financial results. From time to time, the Company also provides forward-looking statements in other publicly-released materials, both written and oral. Forward-looking statements provide current expectations and forecasts of future events such as new products, revenues and financial performance, and are not limited to describing historical or current facts. They can be identified by the use of words such as "believes," "expects," "plans," "intends," "anticipates," and other words and phrases of similar meaning.

Forward-looking statements are necessarily based on assumptions, estimates and limited information available at the time they are made. A broad variety of risks and uncertainties, both known and unknown, as well as the inaccuracy of assumptions and estimates, can affect the realization of the expectations or forecasts in these statements. Many of these risks and uncertainties are difficult to predict or are beyond the Company's control. Consequently, no forward-looking statements can be guaranteed. Actual future results may vary materially. Significant factors affecting the expectations and forecasts are set forth under "Item 1A — Risk Factors" in this Annual Report on Form 10-K.

The Company undertakes no obligation to update any forward-looking statements to reflect events or circumstances that arise after the date hereof. Investors should refer to the Company's subsequent filings under the Securities Exchange Act of 1934 for further disclosures.

# **Executive Summary**

On May 9, 2014, pursuant to the Merger Agreement dated March 10, 2014, the Company acquired AMCOL International Corporation ("AMCOL"). The Company acquired AMCOL by completing a tender offer to purchase AMCOL's outstanding shares of common stock and the subsequent merger of AMCOL with and into a wholly-owned subsidiary of MTI. Upon completion of the merger, AMCOL became a wholly owned direct subsidiary of MTI. Through the tender offer and the merger, the Company paid \$1,519.4 million in cash to acquire all of the outstanding shares of AMCOL. The fair value of total consideration transferred, net of cash acquired was \$1,802.3 million. The Company's operating results include the results of operations of the acquired AMCOL businesses from May 9, 2014, through December 31, 2014.

With the acquisition of AMCOL, the Company has strengthened its position as a leading international producer of specialty materials and related products and services for industrial and consumer markets. The Company and AMCOL

have both been world-renowned innovators in mineralogy, fine particle technology and polymer chemistry. This transaction brings together the global leaders in precipitated calcium carbonate and bentonite, creating an even more robust US-based international minerals supplier.

As a result of the acquisition, the Company has 5 reportable segments: Specialty Minerals, Refractories, Performance Materials, Construction Technologies, and Energy Services compared to 2 reportable segments in the prior year (Specialty Minerals and Refractories).

- The Specialty Minerals segment produces and sells the synthetic mineral product precipitated calcium carbonate ("PCC") and processed mineral product quicklime ("lime"), and mines mineral ores then processes and sells natural mineral products, primarily limestone and talc.
- -The Refractories segment produces and markets monolithic and shaped refractory materials and specialty products, services and application and measurement equipment, and calcium metal and metallurgical wire products.

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- -The Performance Materials segment is a leading supplier of bentonite and bentonite-related products. This segment also supplies chromite and leonardite and operates more than 25 mining or production facilities worldwide.
- -The Construction Technologies segment provides products for non-residential construction, environmental and infrastructure projects worldwide. It serves customers engaged in a broad range of construction projects, including site remediation, concrete waterproofing for underground structures, liquid containment on projects ranging from landfills to flood control, and drilling applications including foundation, slurry wall, tunneling, water well, and horizontal drilling.
- -The Energy Services segment provides services to improve the production, costs, compliance, and environmental impact of activities performed in the oil and gas industry. This segment offers a range of patented and unpatented technologies, products and services for all phases of oil and gas production, refining, and storage throughout the world.

Diluted earnings from continuing operations during the year ended December 31, 2014 were \$2.59 per share. Included in pre-tax income and earnings per share were certain non-routine items which, when combined, reduced earnings by \$1.41 per share. These were as follows:

Acquisition transaction and integration costs	\$19.1	million
Restructuring	\$43.2	million
Premium	\$5.8	million
Non-cash inventory step-up charges	\$5.6	million
Litigation settlement (gain)	\$(2.3)	million
Total	\$71.4	million

Over the last six years, through operational excellence and a rigorous discipline in financial management, the Company has been transformed into a strong operating company with increased operating margins, cash flows, and return on capital. We expect to bring that same business model and management discipline to integrating the acquired businesses. At the time of the transaction, the Company expected the acquisition of AMCOL to generate \$50 million in estimated synergies over the next two to three years and up to \$70 million over the next five years. Since that time, we have accelerated the integration and presently expect to generate \$70 million of annualized synergies by the end of 2015. Since that time, the Company expects to incur some additional integration and other acquisition-related transition costs through 2015 that are necessary in order to achieve such synergies.

Worldwide sales in 2014 increased 69% from the prior year to \$1,725.0 million from \$1.018.2 million. Sales growth was achieved primarily from the activity of the acquired business. Sales in the Specialty Minerals segment were \$650.1 million, a 3 percent decrease from the prior year. In the Refractories segment, sales were \$359.7 million a 3% percent increase over the prior year.

The Company continued to advance the execution of its growth strategies of geographic expansion and new product innovation and development. We began operations at one new satellite facility in China in the second quarter. In addition, we are currently constructing four additional satellite plants in China, including the recently announced 50,000 metric ton facility with Zhejiang Zhengda Paper Group Ltd that should be operational in the fourth quarter of 2015. This is our first on-site satellite plant that produces PCC for the coated packaging market. The total capacity being installed with these four new satellite plants is approximately 300,000 tons. The Company continued to see progress in our major growth strategy of developing and commercializing new products in advancing our FulFill® platform of technologies of higher filler loading. In 2014, we signed 4 commercial agreements for FulFill® with a North American paper company. We presently have eighteen commercial contracts for FulFill®. The contribution of our FulFill® program to operating income was approximately \$2.5 million in 2014. Our agreement with United Steel

Company B.S.C. (SULB), in Bahrain, which began operations in the third quarter of 2012, generated sales of \$11.3 million in 2014. We expected to generate on average \$10 million per year over the 3 year term of the contract and have recognized \$28 million in sales from inception through 2014. Our Refractories segment entered into a three-year agreement with Bhushan Steel Ltd. of India, to provide cost-per-ton (CPT) steel refractory maintenance for two of Bhushan's Basic Oxygen Furnaces (BOF) at its new steel-making facility in Angul, India. This is the first CPT contract in India. We expect to generate on average sales of \$2 million per year over the 3 year term of the contract. In addition, we entered into a two-year CPT contract with Tata Steel in Europe. We expect to generate on average sales of \$2.0 million per year over the term of the contract. In January 2015, the Company announced that it entered into agreement with Glencore in South Africa, where the Company mines chromite, an iron chromium oxide, for its Performance Materials segment. Under the agreement, Glencore will supply chromite products from the Glencore-Merafe joint venture that will be exclusively distributed by the Company in certain territories, including the Americas.

In connection with the acquisition of AMCOL, the Company entered into a \$1.56 billion senior secured term loan facility (the "Term Facility"). At the same time, the Company entered into a \$200 million senior secured revolving credit facility (the "Revolving Facility" and, together with the Term Facility, the "Facilities"). As of December 31, 2014, the Revolving Facility was unused. Long- term debt as of December 31, 2014 was \$1,455.5 million. During the second half of 2014, we repaid \$100 million of acquisition related debt. Cash, cash equivalents and short-term investments at December 31, 2014, were \$250.4 million, of which \$87.4 million is held by our domestic subsidiaries and \$163.0 million is held by our international subsidiaries. Cash flow from continuing operations for the year was strong at \$314.1 million. Our intention is to use excess cash flow to repay debt and to de-lever as quickly as possible.

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#### Outlook

Looking forward, we remain cautious about the state of the global economy and the impact it will have on our product lines.

In addition to the integration of AMCOL and realization of the potential synergies from the acquired businesses, the Company will also continue to focus on innovation and new product development and other opportunities for sales growth in 2015, as follows:

Develop multiple high-filler technologies, such as filler-fiber, under the FulFill® platform of products, to increase the fill rate in freesheet paper and continue to progress with commercial discussions and full-scale paper machine trials.

Develop products and processes for waste management and recycling, opportunities to reduce the environmental impact of the paper mill, reduce energy consumption and improve the sustainability of the papermaking process. Further penetration into the packaging segment of the paper industry.

Increase our sales of PCC for paper by further penetration of the markets for paper filling at both freesheet and groundwood mills, particularly in emerging markets.

Expand the Company's PCC coating product line using the satellite model.

Promote the Company's expertise in crystal engineering, especially in helping papermakers customize PCC morphologies for specific paper applications.

Expand PCC produced for paper filling applications by working with industry partners to develop new methods to increase the ratio of PCC for fiber substitutions.

Develop unique calcium carbonate and talc products used in the manufacture of novel biopolymers, a new market opportunity.

Deploy new talc and GCC products in paint, coating and packaging applications.

Deploy value-added formulations of refractory materials that not only reduce costs but improve performance.

Expand our solid core wire product line into BRIC, Middle Eastern and other Asian countries.

Deploy our laser measurement technologies into new applications.

Expand our refractory maintenance model to other steel makers globally.

Increase our presence and gain penetration of our bentonite based foundry customers in emerging markets, such as China and India.

Continue the development of our proprietary Enersol® products for agricultural applications worldwide.

Pursue opportunities for our products in environmental and building and construction markets in the Middle East, Asia Pacific and South America regions.

Deploy operational excellence principles into all aspects of the organization, including system infrastructure and lean principles.

Continue to explore selective small bolt-on type acquisitions to fit our core competencies in minerals and fine particle technology.

However, there can be no assurance that we will achieve success in implementing any one or more of these opportunities.

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# Results of Operations

# Consolidated Income Statement Review

	Year Ended December 31,							
						2014	2013	
	2014		2013		2012	vs. 2013	vs. 2012	
	-	in 1			2012	2013	2012	
Net sales	(Dollars in millions) \$1,725.0 \$1,018.2 \$996.8			\$996.8	69.4 %	2.1	%	
Cost of sales	1,289.6		784.5	_	774.5	64.4 %		%
Production margin	435.4	,	233.7		222.3	86.3 %		%
Production margin %	25.2	%	23.0	%	22.3 %	00.5 70	3.1	70
1 Toduction margin 70	23.2	70	23.0	70	22.3 70			
Marketing and administrative expenses	177.4		89.2		88.5	98.9 %		%
Research and development expenses	24.4		20.1		20.2	21.4 %	-0.5	%
Insurance / litigation settlement (gain)	(2.3	)	(2.5	)	-	*	*	
Amortization expense of intangible assets acquired	4.8		-		-	*	*	
Acquisition related transaction and integration costs	19.1		-		-	*	*	
Restructuring and other charges	43.2		-		-	*	*	
Income from operations	168.8		126.9		113.6	33.0 %	11.7	%
Operating margin %	9.8	%	12.5	%	11.4 %	22.0 70	11.,	,0
Interest expense, net	(41.8	)	(0.2)	)	(0.1)	*	100.0	0%
Premium on early extinguishment of debt	(5.8	)	-		-	*	*	
Other non-operating income (deductions), net	1.8		(3.0	)	(2.9)	*	3.4	%
Total non-operating deductions, net	(45.8	)	(3.2	)	(3.0)	*	*	
Income from continuing operations before provision for taxes								
and equity in earnings	123.0		123.7		110.6	-0.6 %	11.8	%
Provision for taxes on income	30.8		34.5		31.9	-10.7%		%
Effective tax rate	25.0	%	27.9	%	28.8 %	10.7 70	0.2	70
Directive tax rate	22.0	, c	27.5	,0	20.0 70			
Equity in earnings of affiliates, net of tax	1.2		-		-	*	*	
Income from continuing operations, net of tax	93.4		89.2		78.7	4.7 %	13.3	%
Income (loss) from discontinued operations, net of tax	2.1		(5.8	)	(2.5)	*	*	
Net income attributable to non-controlling interests	3.1		3.1	-	2.1	0.0 %	47.6	%
Net income attributable to Minerals Technologies Inc. (MTI)	\$92.4		\$80.3		\$74.1	15.1 %	8.4	%

<sup>\*</sup> Not meaningful

Net Sales

Year Ended December 31, 2014 2013 2012 2014 2013 vs. vs.

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				2013	2012
	(Dollars in	n millions)			
U.S.	\$1,004.4	\$563.5	\$562.5	78.2%	0.2 %
International	720.6	454.7	434.3	58.5%	4.7 %
Total sales	\$1,725.0	\$1,018.2	\$996.8	69.4%	2.1 %
Specialty Minerals Segment	\$650.1	\$669.8	\$653.4	-2.9 %	2.5 %
Refractories Segment	359.7	348.4	343.4	3.2 %	1.5 %
Performance Materials Segment	352.8	-	-	*	*
Construction Technologies Segment	152.3	-	-	*	*
Energy Services Segment	210.1	-	-	*	*
Total sales	\$1,725.0	\$1,018.2	\$996.8	69.4%	2.1 %

<sup>\*</sup> Not meaningful

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Worldwide net sales in 2014 increased 69.4% from the previous year to \$1,725.0 million. The increase was primarily from the Performance Materials, Construction Technologies, and Energy Services businesses acquired in the AMCOL acquisition. Sales from operations owned for more than one year decreased \$8.4 million due to lower sales in Specialty Minerals segment resulting from paper grade realignment in North America affecting the paper PCC product line. Approximately \$452.4 million of sales within United States and \$262.8 million of sales within International regions relate to the acquisition of AMCOL businesses.

Worldwide net sales in 2013 increased 2.1% from the previous year to \$1,018.2 million. Foreign exchange had an unfavorable impact on sales of \$11.2 million or 1 percentage point of growth. The increase in sales was primarily attributable to sales growth in paper PCC products. Net sales in the United States grew slightly to \$563.5 million in 2013 and represented 55.3% of consolidated net sales. International sales increased 4.7% to \$454.7 million from \$434.3 million.

### **Operating Costs and Expenses**

The cost of sales was \$1,289.6 million, \$784.5 million and \$774.5 million in 2014, 2013 and 2012, respectively. Production margin as a percentage of net sales was 25.2% in 2014, 23.0% in 2013, and 22.3% in 2012. The cost of sales from the acquired businesses in 2014 was \$515.4 million and included a non-recurring inventory step-up charge of \$5.6 million. During 2014, our Specialty Minerals and Refractories segments production margin benefitted from increased pricing and productivity and cost improvements which more than offset the impact of paper mill and paper machine shutdowns in the U.S. and Europe and increased energy costs.

Marketing and administrative costs were \$177.4 million, \$89.2 million and \$88.5 million in 2014, 2013 and 2012, respectively.

All of the increase in 2014 related to marketing and administrative costs of the acquired businesses. Marketing and administrative costs as a percentage of net sales were 10.3% in 2014, 8.8% in 2013 and 8.9% in 2012.

Research and development expenses were \$24.4 million, \$20.1 million and \$20.2 million in 2014, 2013 and 2012, respectively. All of the increase in 2014 related to research and development costs of the acquired businesses. Research and development expenses as a percentage of net sales were 1.4% in 2014, and 2.0% in 2013 and 2012.

The Company recognized a litigation settlement gain of \$2.3 million in 2014 and an insurance settlement gain of \$2.5 million in 2013.

The Company incurred a \$4.8 million charge relating to the amortization of intangible assets acquired and a \$19.1 million charge for the acquisition related transaction and integration costs during 2014.

During 2014, the Company initiated a restructuring program to realign its business operations, improve efficiencies, profitability, and return on invested capital. This restructuring will occur across all business segments of the Company and is estimated to provide annualized savings of approximately \$20 million. As a result of this restructuring, the Company recorded \$43.2 million of charges related to asset impairments, severance and other employee costs. See Note 3 to the Consolidated Financial Statements for further details.

### **Income from Operations**

During 2014, the Company recorded income from operations of \$168.8 million which included a one-time non-cash inventory step-up charge of \$5.6 million, acquisition related transaction and integrations costs of \$19.1 million,

restructuring charges of \$43.2 million, and a litigation settlement gain of \$2.3 million.

During 2013, the Company recorded income from operations of \$126.9 million as compared with \$113.6 million in the prior year. Income from operations represented 12.5% of sales compared with 11.4% of sales in the prior year. Income from operations in 2013 included an insurance settlement gain of \$2.5 million.

## Non-Operating Income (Deductions)

In May 2014, the Company repaid the Company's \$75 million of outstanding Series A Senior Notes due October 7, 2020 and Series B Senior Notes due October 7, 2023 and entered into a \$1.56 billion senior secured term loan facility to fund the acquisition of AMCOL businesses. The increase in debt level resulted in the \$41.6 million increase in interest expense compared to 2013. The Company also incurred a \$5.8 million charge for prepaying the \$75 million Senior Notes.

The Company recorded non-operating deductions of \$3.2 million in 2013 as compared with \$3.0 million in the previous year.

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#### Provision for Taxes on Income

Provision for taxes was \$30.8 million, \$34.5 million, and \$31.9 million in 2014, 2013 and 2012 respectively. The effective tax rates were 25.0%, 27.9%, and 28.9% during 2014, 2013 and 2012, respectively. The lower effective tax rate in 2014 was primarily due to a change in the mix of earnings, tax benefits on one-time charges at a higher rate, and higher depletion deductions. The decrease in the effective tax rate in 2013 related to the settlement of an IRS audit for tax years 2007 and 2008 and the impact of closing those years, the impact of the reversal of prior year charges resulting from the late extension of expiring corporate income tax provisions by the American Taxpayer Relief Act of 2012 and additional foreign tax credits generated and utilized.

The factors having the most significant impact on our effective tax rates in recent periods are the rate differentials related to foreign earnings indefinitely invested, percentage depletion, and the reversal of tax reserves as a result of a tax court case settlement.

Percentage depletion allowances (tax deductions for depletion that may exceed our tax basis in our mineral reserves) are available to us under the income tax laws of the United States for operations conducted in the United States. The tax benefits from percentage depletion were \$9.5 million in 2014, \$4.5 million in 2013, and \$4.1 million in 2012.

We operate in various countries around the world that have tax laws, tax incentives and tax rates that are significantly different than those of the United States. These differences combine to move our overall effective tax rate higher or lower than the United States statutory rate depending on the mix of income relative to income earned in the United States. The effects of foreign earnings and the related foreign rate differentials resulted in a decrease of income tax expense of \$11.7 million, \$4.4 million and \$4.6 million in 2014, 2013 and 2012, respectively.

### Income from Continuing Operations, Net of Tax

Income from continuing operations, net of tax, was \$93.4 million during 2014 and included a \$48.8 million charge, net of tax. Such charge consisted of restructuring and other charges, acquisition transaction and integration costs, debt prepayment costs, inventory step-up charges, and a litigation settlement gain.

Income from continuing operations, net of tax, was \$89.2 million in 2013 as compared to \$78.7 million in 2012.

# Income (Loss) from Discontinued Operations, net of tax

The Company recognized an income from discontinued operations, net of tax, of \$2.1 million during 2014, and a loss of \$5.8 million and \$2.5 million in 2013 and 2012, respectively.

The Company discontinued its operations at its merchant PCC facility at Walsum, Germany in the second quarter of 2013. In connection with the Company's 2007 restructuring of its European coating PCC operations, the Company recorded an impairment charge related to its Walsum facility. This facility continued to operate well below capacity levels into 2013. The Company recorded a pre-tax \$5.9 million charge for closure costs of this facility in the second quarter of 2013 and a pre-tax \$2.4 million benefit relating to the reversal of facility closure accrual in in the second quarter of 2014.

#### Segment Review

The following discussions highlight the operating results for each of our five segments.

Specialty Minerals Segment

Year Ended December

31,

2014 2013

Specialty Minerals Segment

vs. vs.

2014 2013 2012

2013 2012

(millions of dollars)

Net Sales

Paper PCC \$454.5 \$480.0 \$471.5